

SELF-EDUCATION
QUIZ BOOK NO. 1

GEOGRAPHY

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BY
FREDERICK SILBER



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PREFACE

In times of crisis people need knowledge; but they also need to be entertained. This book, we believe, shows that in the field of Geography the acquisition of knowledge can be accomplished entertainingly—that the world we live in is composed of innumerable interesting question marks.

War has posed a terrific challenge for questioning minds. From Cape Town to Kiska, and from Murmansk to Moulmein, the globe we inhabit has become a battlefield in the struggle for freedom against slavery. How much do we know about the geography of this world of ours in war or in peace?

Geography is more than the physical location of places. In its broadest sense it must deal with the earth in relation to the people on it. It must take into account not only the continents, mountains, rivers, and islands, but the metals with which we fashion tools and weapons, the foods we eat, the clothes we wear, the trade routes plied by our ships and planes. It must enable us to know, for instance, that the islands of Billiton and Banka, in the Dutch East Indies, contain a wealth of tin ore. That is an important fact in a world at war. Or that Japan is poor in metal resources. Or that the United States and Britain are rich in coal. All of these examples show the timeliness of the subject of geography. Inevitably, of course, in the midst of constantly chang-

ing conditions, the nations of the world must be looked upon as they were prior to the outbreak of the Second World War.

The reader will find unique advantages in the organization of this book. Part I consists of challenging and stimulating Quizzes dealing with many phases of geography. Part II is a comprehensive and detailed Outline of the three major divisions of geography—Physical Geography, Political Geography, and Economic Geography—providing virtually a textbook on the subject, which will prove interesting and instructive for reading or studying, quite independently of the Quizzes. At the same time Part II has been so planned that it provides the specific answers to the Quizzes.

The questions in the first twenty-two Quizzes relate to physical, political, and economic facts of geography. The information constituting the answers will be found in the text which follows, on the pages indicated in parentheses after each question. The next six Quizzes are general, compounded of material scattered through the text. The two Master Quizzes are designed as brain-teasers. Each Quiz contains fifty questions, which will make scoring easy if the readers are inclined toward games. On the other hand, those who read Part II first, may use the Quizzes as questions to test their mastery of the various topics.

This book affords ample opportunity for entertainment, yet it is at the same time an effective means of self-education in the important subject of Geography.

FREDERICK SILBER

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PART I

QUIZZES ON GEOGRAPHY

(THE ANSWERS TO THE QUIZZES WILL BE FOUND IN PART II, "AN OUT-LINE OF GEOGRAPHY," WHICH COMMENCES ON PAGE 99.)

HOW TO FIND THE ANSWERS TO THE QUIZZES

In parentheses after each question a number is given which is the number of the page on which the answer to the question will be found. Immediately following the number is the letter "a," "b," or "c." The letter "a" indicates that the answer to the question will be found near the top of the page referred to; the letter "b" indicates that the answer is near the center of the page; and the letter "c" means that the answer is toward the bottom of the page.

Part II of this book (commencing on page 99) is a complete "Outline of Geography." The information which constitutes the answers to the quizzes in Part I is sometimes included within a paragraph discussing other geographic matters, as well as the point involved in the question. Consequently, in reading the passage which provides the answer to the question, the reader will often come upon additional valuable related information.

The answers to Map Quizzes Nos. 1 and 2 (pages 94 to 97) will be found at the end of the book, on pages 338-340.

QUIZ No. 1

THE EARTH—MEASURING TIME AND DISTANCES— THE HEMISPHERES

1. How many planets are there in addition to the earth?
(101a)*
2. Name three planets smaller than the earth. (101a)
3. Give within a million miles the distance of the earth from
the sun. (101a)
4. Would you say the earth is shaped more like a pear or
an orange? (101b)
5. What parts of the earth tend to be slightly flat? (101b)
6. To what does the "axis" of the earth refer? (101b)
7. Night and day are caused by what motion of the earth?
(101c)
8. What does an orbit have to do with the seasons? (101c)
9. Is more of the earth's total surface covered by land or
water? (101c)
10. For the distance through the center of the earth, from
pole to pole, which figure is correct—12,000 miles,
7,900 miles or 25,000 miles? (102a)
11. What is the equator? (102a)
12. Are all points on the equator an equal distance from the
poles? (102a)

*The number in parentheses refers to the page on which the answer will be found. The letter "a" following the number indicates that the answer is near the top of the page; letter "b" indicates approximately the center of the page; letter "c" indicates the lower part of the page. For full explanation of the method of finding answers to the quiz questions, see page 2.

13. State within 100 miles the distance around the earth at the equator. (102a)
14. In what directions do lines of longitude run? (102b)
15. What is a meridian? (102b)
16. How do lines of latitude run with reference to the equator? (102b)
17. What is the total number of meridians? (102b)
18. Why is Greenwich, England, important geographically? (102b)
19. How are meridians numbered from Greenwich? (102c)
20. The number of the meridian on the opposite side of the earth from Greenwich is what? (102c)
21. At what degree of latitude is the equator? (102c)
22. Latitude 90 north represents what point on the earth? (102c)
23. Give the latitude reading of the South Pole. (102c)
24. How do minutes and seconds figure in determining location? (102c & 104a)
25. The International Date Line follows what meridian? (104a)
26. What reasons can you give for the slight fluctuations of the Date Line? (104a)
27. Name one place where the Date Line zigzags sharply. (104a)
28. What happens to a traveler's calendar in crossing the Date Line on a trip from the United States to Asia? (104b)
29. Does day begin at any particular spot on the earth? (104b)
30. What geographical legend has arisen regarding East Cape, Siberia? (104b)
31. How is time measured? (104c)
32. In what way does a meridian help determine time? (105a)

33. Why have time zones been established? (105a)
34. How wide, in geographical terms, are time zones? (105a)
35. The designation of time zones starts at what meridian? (105a)
36. Within how many degrees of longitude would all places have the same time as Greenwich (England)? (105a)
37. Tell, within one hour, the number of hours' time difference between Greenwich (England) and New York. (105b)
38. What accounts for one spot being "earlier" than another? (105b)
39. What artificial, or non-geographical, factors may alter the time differences between places? (105b)
40. Are time zones perfectly regular in size? (105b)
41. How many time belts are there in the United States? (105b)
42. Name three American time zones. (105b)
43. Give the proper name of the geographical line located $23\frac{1}{2}$ degrees from the North Pole. (105c)
44. How far is the Antarctic Circle from the South Pole? (105c)
45. What areas of the earth are commonly called the Frigid Zones? (105c & 108a)
46. What does "hemisphere" mean literally? (108b)
47. The equator divides the earth into what two regions? (108a)
48. Tell the total number of hemispheres. (108a)
49. The 20th Meridian West divides what hemispheres? (108a)
50. Where is the 160th Meridian East, and what boundary does it form? (108a)

QUIZ No. 2

CONTINENTS—OCEANS—POLAR REGIONS

1. How many bodies of land are called continents? (108b)
2. Name the largest continent. (108b)
3. What is the "Dark Continent"? (108b)
4. Where does North America rank in size among the continents? (108c)
5. Of what continent is Central America a part? (108c)
6. Which continents are separated near the Arctic Circle by a distance of only 40 miles? (108c)
7. How is South America joined to North America? (108c)
8. In what hemispheres does South America lie? (109a)
9. Is the area of South America greater or smaller than that of North America? (108c)
10. Name the southernmost continent. (109a)
11. What is the correct figure for Europe's area—7,630,000 square miles, 2,000,000 square miles, or 3,870,000? (109a)
12. Give the combined name sometimes used for two continents of the Eastern Hemisphere. (109b)
13. Trace the eastern land frontier of Europe. (109b)
14. Name the smallest continent. (109b)
15. To what does "Island Continent" refer? (109c)
16. The great mass of the earth's land surface lies in what hemisphere? (109c)

17. What general shape do North America, South America and Africa have in common? (109c)
18. About what percentage of the earth is covered by the continents and islands? (109c)
19. The greatest average elevation above sea level is found on what continent? (110a)
20. What is the second highest continent? (110a)
21. Is Europe, on the average, higher or lower than North America? (110a)
22. Describe a continental shelf. (110a)
23. Oceans are usually bounded by what land bodies? (110b)
24. What is the largest ocean? (110b)
25. Name the land areas bounding the Pacific. (110b)
26. Is the area of the Pacific Ocean closer to 100,000,000, 20,000,000 or 70,000,000 square miles? (110b)
27. What is Mindanao Deep? (110c)
28. Describe the modern method of measuring ocean depths. (110c)
29. Where does the Atlantic rank in size among oceans? (110c)
30. What are the eastern and western boundaries of the Atlantic Ocean? (110c-111a)
31. Identify the Puerto Rico Trench. (111a)
32. Which is the narrowest of the large oceans? (111a)
33. Where is the shortest distance across the Atlantic? (111a)
34. Do the Atlantic and Pacific oceans meet naturally at any point? (111b)
35. Where do the Atlantic and Pacific meet "artificially"? (111b)

36. What ocean lies directly south of Asia? (111b)
37. Name an ocean that extends completely around the earth. (111c)
38. Where do all the major oceans merge? (111c)
39. List the continents touched by the Arctic Ocean. (111c)
40. What is the Great Southern Ocean? (111c)
41. The poetic phrase Seven Seas refers to what bodies of water? (112a)
42. Give the latitude and longitude of the North Pole. (112b)
43. Are the north and south magnetic poles the same as the North and South Poles? (112b)
44. Are the magnetic poles fixed? (112b)
45. What is the character of the earth's surface at the poles? (112b)
46. Who discovered the North Pole? (112c)
47. Which of these three—Scott, Shackleton and Amundsen—was the first to reach the South Pole? (112c)
48. What notable distinction was won by Admiral Richard E. Byrd? (112c–113a)
49. Is the North Pole the coldest place on earth? (113a)
50. What would you find under the North Pole? (113a)

QUIZ No. 3

ISLANDS—PENINSULAS—CAPES

1. Where is Kodiak Island? (113b)
2. In what part of what island chain is Kiska? (113b)
3. A European immigrant arriving at New York first sets foot on what place? (114a)
4. Where is the Statue of Liberty? (114b)
5. Identify two well-known islands near Cape Cod. (114b)
6. Locate the Thousand Islands. (114c)
7. What is the largest island in the world, excluding the Australian continent? (115a)
8. Give the general location of Baffin Land. (115a)
9. Where are the Greater Antilles and what islands are included in this group? (115b)
10. The initials B.W.I. designate what islands? (115c)
11. Give the name of the island group in which Antigua, St. Lucia and Grenada are situated. (116a)
12. To what island did France send its convicts? (116b)
13. Where are the Falkland Islands? (116b)
14. Name the island at the very "bottom" of South America. (116c)
15. The Galapagos Islands are situated where? (116c)
16. Where are the Antipodes and why are they so called? (117a)

17. How many major islands are included in New Zealand? (117b)
18. Name the world's second largest island, excluding Australia. (117c)
19. In what islands is Java? (117c)
20. Is Sumatra east or west of Java? (118a)
21. "The Crossroads of the Pacific" refers to what islands? (118b)
22. Locate Howland and Baker islands. (118b)
23. The Marshall and Gilbert islands are situated where? (118c)
24. Forts Hughes, Drum, Frank and Corregidor have what location in common? (119a)
25. Name two British island fortifications in the Far East. (119b)
26. What is Honshu? (119c)
27. Tea, elephants, spices and precious stones are associated with what famous island? (120a)
28. Name an island, one of the world's largest, located off the east coast of Africa. (120b)
29. Give the collective name for the islands off the east coast of Spain, in the Mediterranean. (120c)
30. Where are the Dodecanese Islands? (121b)
31. Give the general location of the Faroe Islands. (121c)
32. What island in the North Sea off Germany has held an important position in naval history? (121c & 122a)
33. Name two peninsular states of the United States. (122c)
34. What cape is at the southernmost point of the United States? (123a)
35. Name the American cape noted for its storms. (123a)
36. Locate the Yucatán Peninsula. (123b)

37. Where would one go on a trip to the Gaspé? (123c)
38. Where is Cape Farewell? (123c)
39. Name the capes that lie across from each other at the narrowest point between North America and Asia. (123c)
40. Where is the Kola Peninsula? (124a)
41. Locate Kamchatka. (124a)
42. If you took a North Cape cruise, where would you travel? (124b)
43. What peninsula lies across the Sea of Japan from the Japanese islands? (124b)
44. Part of the boundary between the Pacific and Indian oceans is formed by what peninsula? (124c)
45. Name the peninsula bounded by the South China Sea and Manila Bay. (124c)
46. Where is Cape Horn? (125a)
47. What is the name of the southern tip of Africa? (125a)
48. On what European coast is Cape Finisterre located? (125b)
49. Name two important peninsulas extending south into the Mediterranean Sea. (125c)
50. What is the peninsula within a peninsula on the Black Sea? (125c)

QUIZ No. 4

SEAS—STRAITS—CHANNELS—FIRTHS—FIORDS—SOUNDS

1. Are all seas necessarily connected with oceans? (125c)
2. Identify the sea lying between the West Indies and South America. (126a)
3. What and where is the Sargasso Sea? (126b)
4. England and Ireland are separated by what body of water? (126b)
5. What sea lies between Great Britain and northern Europe? (126c)
6. What body of water which penetrated into Holland from the sea is being transformed into an inland lake? (126c)
7. Name the sea that cuts between the Scandinavian countries and the rest of Europe. (126c)
8. Europe and Africa are separated by what sea? (127a)
9. How did the Latin words for "middle" and "land" enter into the naming of a great sea? (127a)
10. What general location do the Ionian, Tyrrhenian, Adriatic and Aegean seas have in common? (127a)
11. Identify the sea connecting the Mediterranean and the Indian Ocean. (127b)
12. Where is the Sea of Marmora? (127b)
13. What sea is bordered by Turkey on the south and Russia on the north? (127c)

14. Why does the Black Sea have no tides? (127c)
15. Name a small sea that juts north from the Black Sea into Russia. (127c)
16. The Arabian Sea is part of what ocean? (127c)
17. The western shores of the Arabian Sea divide what continents? (128a)
18. What sea is the lowest in the world? (128a)
19. The largest inland sea in the world is what? (128a)
20. Where is the Barents Sea? (128b)
21. What sea provides an entrance to northern Russia? (128b)
22. Locate the Nordenskiöld and Kara seas. (128c)
23. Name the sea that links the Pacific and Arctic oceans along the coast of Alaska. (128c)
24. Where is the Sea of Okhotsk? (129a)
25. What body of water divides Japan from the Asiatic mainland? (129a)
26. The islands of Japan enclose what sea? (129a)
27. Locate the Yellow Sea. (129b)
28. To how many seas does China give its name and what are they? (129b)
29. How does the Yellow Sea get its color? (129b)
30. Give the location of the Sulu Sea. (129c)
31. In what region are the Flores, Celebes and Timor seas? (129c)
32. The Tasman Sea is situated where? (130a)
33. Where is the Ross Sea? (130a)
34. How long is Long Island Sound? (130b)
35. What sound forms a harbor for several Pacific Coast cities of the United States? (130c & 131a)
36. Where is the Windward Passage? (131b)

37. What strait connects the Atlantic and Pacific oceans at the tip of South America? (131c)
38. The English Channel flows between what two coasts? (131c)
39. What is Scotland's best known firth? (132a)
40. Traveling between Ireland and Wales, what channel would one cross? (132b)
41. Identify the Kattegat and Skagerrak. (132c)
42. Where is Denmark Strait? (133a)
43. "The Rock" is on what water passage? (133b)
44. Where are the "Pillars of Hercules"? (133b)
45. What strait separates Italy and the island of Sicily? (133b)
46. Identify a strait in eastern Europe across which a famous nineteenth-century poet swam. (134a)
47. What strait separates the Russian Crimea from the Caucasus? (134a)
48. What strait is associated with antinarcotics? (134c)
49. What island is separated from the mainland of Australia by Bass Strait? (134c)
50. Name the bodies of land on opposite shores of the Mozambique Channel. (135a)

QUIZ No. 5

MOUNTAINS—CANALS—VALLEYS—PLATEAUS—DELTAS— ISTHUSES

1. What is the estimated age of the earth? (135b)
2. Describe two factors contributing to the development of mountains. (135b)
3. What mountain range extends down the western United States? (135c)
4. What is the Great Divide? (135c)
5. Name the highest peak of North America. (135c)
6. For what is Mount Whitney noted? (135c & 138a)
7. Locate the Cascade Range. (138a)
8. In what state is Pike's Peak located? (138b)
9. On what mountain have the faces of four American Presidents been hewn? (138b)
10. Name the most important mountain range of the eastern United States. (138c)
11. Where are the Laurentians? (138c)
12. List three eastern United States mountain chains having colors in their names. (138c)
13. Mount Mitchell and Clingman's Dome have what general location in common? (138c)
14. What states do the Ozarks touch? (138c & 139a)
15. Trace the course of the Andes Mountains. (139a)
16. What is Aconcagua? (139a)

17. Name four countries touched by the European Alps. (139b)
18. What is notable about Mont Blanc? (139b)
19. The Pyrenees form the boundary between what countries? (139b)
20. What is the chief mountain range of Italy? (139c)
21. In what part of Greece is Mount Olympus? (139c)
22. The Harz Mountains are located where? (142a)
23. Mount Elbruz, the highest peak of Europe, is in what mountains? (142a)
24. Identify the mountains between India and Tibet. (142b)
25. Name the highest mountain in the world. (142b)
26. Where is Mount Ararat? (142c)
27. The Atlas Mountains are in what region? (142c-143a)
28. Give the name of Japan's sacred mountain. (142c)
29. Locate Killimanjaro. (143a)
30. Kosciusko is the highest peak of what continent? (143a)
31. Name an American canal which is more than 500 miles long. (143b)
32. What canal helps connect Lake Michigan with the Mississippi River? (143b)
33. The canal between Barnstable Bay and Buzzards Bay is what? (143c)
34. What valley in the United States is the widest? (143c)
35. In what state is the Mississippi Delta? (143c)
36. Where is the Welland Canal? (144a)
37. Locate the Plains of Abraham. (144a)
38. Give within 10 miles the width of the Isthmus of Panama. (144c)

39. Approximately what distance is saved by the Panama Canal for ships going from New York to San Francisco, with Cape Horn as the alternative route? (145a)
40. Where is the Manchester Canal? (145b)
41. What isthmus links the Peloponnesus with the rest of Greece? (145b)
42. Name the canal connecting the North Sea and Baltic through Germany. (145c)
43. How long is the Suez Canal? (145c)
44. Name two eastern Mediterranean valleys important in the development of world history. (145c)
45. How did the word "delta" originate? (146a)
46. What part of Africa is a vast plateau? (146a)
47. Where is the Donets Basin? (146b)
48. The Karelian Isthmus lies between what countries? (146c)
49. Where is the Isthmus of Kra? (146c)
50. Through what valley does much of the commerce of China travel? (146c)

QUIZ No. 6

BAYS—GULFS—LAKES—RIVERS

1. Is Hudson Bay above or below the Arctic Circle? (147b)
2. What is the largest bay in the continental United States? (147b)
3. What do Saginaw Bay, Green Bay and Georgian Bay have in common? (147c)
4. Where is Florida Bay? (147c)
5. Mobile Bay is part of what gulf? (147c)
6. What bay would you cross in taking a ferry from San Francisco to Oakland, California? (148a)
7. In what West Indies island is Guantanamo Bay? (148a)
8. Where is the Bay of Fundy? (148b)
9. Is the Gulf of Panama part of the Atlantic or Pacific Ocean? (149a)
10. Locate the Gulf of Darien. (149a)
11. What bay forms part of the Atlantic coastline of both France and Spain? (149a)
12. Identify the Gulf of the Lion. (149b)
13. Name the gulf between the heel and sole of the "boot" of Italy. (149c)
14. What gulf would you cross going from Sweden to Finland? (149c)
15. Identify the body of water bordered by Finland on the north and Russia on the south. (149c)

16. On what bay do two of Japan's chief cities lie? (150c)
17. Locate Botany Bay. (151a)
18. Where is the Bay of Whales? (151b)
19. What is the largest fresh-water lake in the world? (151c)
20. Are all the Great Lakes entirely within the United States? (151c)
21. Where is Great Salt Lake? (152a)
22. Locate Yellowstone Lake. (152a)
23. Where are Lakes Okeechobee, Tahoe, and Oneida? (152a)
24. List five states of the United States that contain many lakes. (152b)
25. Where does Lake St. Clair lie in relation to the Great Lakes? (152b)
26. Great Bear and Great Slave lakes are where? (152c)
27. Where is Gatun Lake? (153a)
28. For what is Lake Titicaca noted? (153b)
29. Locate Lake Maracaibo. (153b)
30. What lake in Switzerland has had many international meetings on its shores? (153c)
31. Name three other lakes in Switzerland. (153c)
32. Where is the second largest lake in the world? (154a)
33. Give the location of Lake Tanganyika. (154b)
34. What part of Europe is known as "The Land of a Thousand Lakes"? (154c)
35. Where is Lake Ladoga? (154c)
36. What rivers form the longest river system in the world? (155b)

37. Name the river contained entirely within New York State. (155c)
38. On what river is the capital of the United States situated? (156a)
39. Name the river that forms part of the northern boundary of the United States. (157a)
40. Where is the Red River of the North? (157b)
41. What is the second longest river in North America? (157b)
42. Identify the most noted river of South America. (157c)
43. On what river is London situated? (158a)
44. Locate the Somme, Marne and Meuse rivers. (158b)
45. What notable European river rises in Switzerland and flows to the North Sea? (159b)
46. Name a European river that flows through three capitals. (159c)
47. Where is the Ob River? (160c)
48. Identify the Yenisei River. (160c & 161a)
49. What is the longest single river in the world? (162a)
50. The Murray is one of the chief rivers of what continent? (162b)

QUIZ No. 7

DESERTS—CANYONS—GORGES—GLACIERS—CAVERNS— VOLCANOES—GEYSERS—WATERFALLS—CLIMATES

1. Locate Zion Canyon. (162c)
2. Where would you go to enjoy the sights of the Grand Canyon? (162c)
3. Where are the Carlsbad Caverns? (163a)
4. What is the difference between a stalactite and a stalagmite? (163a)
5. Name one of the famous caverns of Virginia. (163b)
6. To what parts of the United States would one travel to see petrified forests? (163c)
7. Where is the Great American Desert? (163c)
8. Muir Glacier is located where? (164a)
9. What is a moraine? (164a)
10. Where are the greatest of all glaciers? (164b)
11. Name a famous cave off Scotland. (164c)
12. Where is the Blue Grotto? (164c)
13. What is a tundra? (164c)
14. Name the famous gorges of China. (165a)
15. What is the greatest desert in the world? (165b)
16. Identify a well-known desert which is part of the world's greatest desert but bears a separate name. (165b)
17. Are there any glaciers in Africa? (165b)
18. What continent has no glaciers at all? (165c)

19. On what continent would you find the largest proportion of land taken up by deserts? (165c)
20. Name two large Australian deserts. (165c & 166a)
21. How do volcanoes help determine the age of the earth? (166a)
22. What is noteworthy about Lassen Peak? (166a)
23. What is Popocatepetl? (166c)
24. What location do Chimborazo and Cotopaxi have in common? (166c)
25. With what volcano is Pompeii associated? (166c)
26. What is the highest volcano in Europe? (167a)
27. Where would one go to visit the crater of Kilauea? (167b)
28. Volcanic activity has produced extremely rich soil on what South Sea islands? (167b)
29. Name a volcano that is a center of Japanese religious life. (167b)
30. What spot has more geysers than all the rest of the world combined? (167c)
31. How often does Old Faithful perform? (167c)
32. Where is Hot Springs National Park? (167c)
33. To what North Atlantic island could one go to cook eggs over a geyser? (168a)
34. The highest waterfalls in the United States are found where? (168b)
35. Name two of the highest waterfalls in Yosemite Park. (168b)
36. What are the names of the two separate cataracts of Niagara Falls? (168b)
37. Near what city are the Great Falls of the Potomac? (168c)

38. Give the general locations of these American waterfalls:
Shoshone; Missouri; Seven Falls. (168c)
39. Where is Kukenaam waterfall located? (169a)
40. Where is Victoria Falls? (169b)
41. What does a falling barometer mean to a mariner?
(169c)
42. Name the earth's five climate zones. (169c)
43. What do the Tropic of Cancer and the Tropic of Capricorn have to do with the seasons? (170a)
44. Give the names of the two periods in each year when
days and nights are nearly equal in length. (170b)
45. Where is the "Land of the Midnight Sun"? (171a)
46. What type of storm often hits the southern coastal regions of the United States? (171b)
47. If you were in the monsoon belt, what part of the world
would it be? (171c)
48. What are the Northeast Trades? (172a)
49. How do mountains on the Pacific Coast cause arid regions in the southwestern United States? (173a)
50. What is generally reputed to be the hottest spot in the
United States? (173b)

QUIZ No. 8

THE UNITED STATES—I

1. Name the main large political divisions of North America. (174c & 176a)
2. Give the boundaries of the United States. (176b)
3. Of what does the United States consist? (176b)
4. Where is the national capital? (176b)
5. State in round numbers the 1940 population of the United States. (176c)
6. What is the total population of the United States and its possessions? (176c)
7. Name the 13 original colonies. (176c)
8. List the states ceded to the United States by Mexico. (177a)
9. How was Alaska obtained? (177b)
10. Name in order of population the five largest cities of the United States. (177c & 178a)
11. Which is the largest state in the Union? (178c)
12. Which is the smallest? (178c)
13. What four states are commonly known as commonwealths? (178c)
14. What city is the "Pittsburgh of the South"? (180a)
15. In what state is Boulder Dam? (180a)
16. Where is the only diamond field in the United States? (180b)

17. What is the country's largest city in area? (180c)
18. Name three ports in Connecticut. (181a)
19. For what is Waterbury noted? (181a)
20. What is the second smallest state? (181a)
21. Give, approximately, the present area of the District of Columbia. (181b)
22. What is the oldest European settlement in the eastern United States? (181c)
23. For what product is Tampa noted? (181c)
24. Where is one of the largest livestock markets in the world? (182b)
25. What state carries the heaviest railroad tonnage in the nation? (182b)
26. The "Steel City" is applied to what place? (182c)
27. In what state is the country's center of population? (182c)
28. Name four cities in Iowa. (182c)
29. Where is the nation's geographical center? (183a)
30. Kentucky is famous for what? (183b)
31. Name an eastern national park having both mountain and seacoast scenery. (183c)
32. What is the largest city in Maryland? (183c)
33. Where is the United States Naval Academy? (184a)
34. For what is Fort McHenry National Monument noted? (184a)
35. In what state is Plymouth Rock? (184b)
36. Into what two geographical parts is Michigan divided? (184b)
37. What great industry is centered in Detroit? (184b)
38. What are the "Twin Cities"? (184c)

39. Name the capital of Minnesota. (184c)
40. What political dividing line passes through the Lake of the Woods? (184c)
41. What is noteworthy about Lake Itasca? (184c)
42. How does the state of Mississippi hold back the flood waters of the Mississippi River? (185a)
43. Little Big Horn, the scene of Custer's "last stand", is where? (185c)
44. In what state is Glacier National Park? (185c)
45. What is the most arid state? (186a)
46. Name the least densely populated state. (186a)
47. What is the "divorce capital" of the country? (186a)
48. Name the capital of New Hampshire. (186b)
49. What is New Hampshire's only port? (186b)
50. Where is the Great Stone Face? (186b)

QUIZ No. 9

THE UNITED STATES—II

1. The Palisades are in what state? (186b)
2. Where did Washington's crossing of the Delaware take place? (186c)
3. Some of the largest Indian reservations are found in what region? (187a)
4. What eastern city contains about half the population of its state? (187a)
5. What is the greatest business district in the world? (187b)
6. Name five leading cities of New York State. (187b)
7. Give the names of two large suspension bridges located in New York City. (187b)
8. Where is Kitty Hawk? (187c)
9. What are the "Bad Lands"? (188a)
10. List five important cities in Ohio. (188a)
11. What is the nation's "oil capital"? (188b)
12. The capital of Pennsylvania is what? (188c)
13. What place does Philadelphia hold in the development of the United States? (189a)
14. Pittsburgh is a center of what industry? (189a)
15. Providence is the capital of what state? (189b)
16. Name South Carolina's capital. (189b)

17. Where is Pierre? (189c)
18. What Tennessee city is a leading port on the Mississippi? (190a)
19. Name two ports in Texas. (190a)
20. Where is the Alamo? (190a)
21. In what state are Ogden, Provo and Logan? (190b)
22. For what products is Vermont noted? (190c)
23. Richmond is the capital of what state? (190c)
24. Locate Hampton Roads. (191a)
25. Where is the Great Dismal Swamp? (191a)
26. The tomb of George Washington is in what state? (191a)
27. What is the "Panhandle" state? (191b)
28. Name two cities in West Virginia. (191b)
29. The cities of Superior and Ashland are in what state? (191c)
30. Name the state which pioneered in woman suffrage. (191c)
31. Where is Yellowstone National Park? (191c & 192a)
32. What is the capital of Alaska? (192b)
33. List four cities of Alaska. (192b)
34. Name three inhabited islands of the Hawaiian group. (192c)
35. Can you name four nationalities found among the people of Hawaii? (192c)
36. Locate the Philippine Islands. (193b)
37. What are four of the largest islands of the Philippines? (193b)
38. What is the capital of the Philippines? (193b)
39. Where is Guam? (193c)

40. What is the capital of Guam? (193c)
41. Give the general location of Samoa. (193c)
42. Where is Wake Island? (194a)
43. Puerto Rico is situated where? (194a)
44. How is Puerto Rico governed? (194b)
45. Where are the Virgin Islands? (194b)
46. What nations share the Virgin Islands? (194b)
47. Give the names of two islands in the Virgin Islands group. (194b)
48. How are the Virgin Islands administered? (194c)
49. Of what does the Canal Zone consist? (194c)
50. What department of the United States government administers the Canal Zone? (194c & 195a)

QUIZ No. 10

CANADA—NEWFOUNDLAND AND LABRADOR—MEXICO— CENTRAL AMERICA—NORTH AMERICAN ISLANDS

1. How many provinces does the Dominion of Canada contain? (195b)
2. What are the "Maritime Provinces"? (195b)
3. Name the capital of Canada. (195b)
4. Canada is part of what empire? (195c)
5. Of what province is Edmonton the capital? (195c)
6. Where is British Columbia? (196a)
7. Name the capital of Manitoba. (196a)
8. What is Nova Scotia's capital city? (196b)
9. Locate Prince Edward Island. (196c)
10. Which is the largest Canadian province? (196c)
11. Of what province is Regina the capital? (196c)
12. The Klondike is in what Canadian territory? (197a)
13. What is included in the Northwest Territories? (197a)
14. Name two districts in the Northwest Territories. (197b)
15. Is Newfoundland a dominion, colony, or province? (197b)
16. What is the capital of Newfoundland? (197b)
17. Mexico contains how many states? (197c)
18. What form of government does Mexico have? (198a)
19. What languages are spoken in Mexico? (198a)

20. Is the population of Mexico closer to 20,000,000 or 50,000,000? (198a)
21. Central America contains how many independent countries? (198b)
22. What is Costa Rica's capital? (198c)
23. Costa Rica's official language is what? (198c)
24. Name the capital of Guatemala. (198c)
25. Guatemala has what form of government? (199a)
26. Name the famous ancient civilization evidenced in Guatemalan ruins. (199a)
27. Where is Honduras? (199a)
28. Give the name of the Honduran capital. (199a)
29. Of what country is Managua the capital? (199b)
30. What country forms the link between Central and South America? (199b)
31. What racial groups are included in the population of Panama? (199c)
32. Salvador's capital is what city? (199c)
33. What principal crop does Salvador produce? (199c)
34. Where is British Honduras? (200a)
35. Locate the Bahamas. (200b)
36. Name the capital of the Bermudas. (200b)
37. What is the capital of Barbados? (200c)
38. Jamaica is situated where? (200c)
39. To what does "Pearl of the Antilles" refer? (201b)
40. What is the capital of Cuba? (201b)
41. Describe Cuba's form of government. (201b)
42. What language is spoken in Cuba? (201b)
43. Identify the "Black Republic". (201c)
44. The capital and chief port of Haiti is what? (201c)

45. Can you locate the Dominican Republic? (201c)
46. Give the name of the Dominican Republic's capital.
(201c)
47. State the official language of the Dominican Republic.
(202a)
48. List three French possessions in the North American
area. (202a & b)
49. To what country does Greenland belong? (202c)
50. What is Greenland's capital? (202c)

QUIZ No. 11

SOUTH AMERICA

1. South America is composed of how many independent countries? (202c)
2. What are the "ABC Countries"? (204a)
3. In what part of the continent is Argentina? (204b)
4. Name the Argentine capital. (204b)
5. What language prevails in Argentina? (204b)
6. Of what is La Paz the capital? (204c)
7. The majority of Bolivia's people are of what race? (204c)
8. For what metal is Bolivia noted? (205a)
9. How does Brazil rank in size in South America? (205b)
10. What is Brazil's capital? (205b)
11. What South American country has "United States" in its full name? (205b)
12. Tell what language is official in Brazil. (205c)
13. Where is Chile? (205c)
14. Name the Chilean capital. (206a)
15. Colombia is in what corner of South America? (206b)
16. The capital of Colombia is what city? (206b)
17. Is Ecuador north or south of Colombia? (206c)
18. What is Ecuador's capital? (206c)

19. What port of Ecuador is called "Pearl of the Pacific"? (206c)
20. Name the islands, favorite haunt of naturalists, that belong to Ecuador. (207a)
21. Does Paraguay have a seacoast? (207b)
22. Name Paraguay's capital. (207b)
23. Locate Peru. (207c)
24. What is the Peruvian capital? (207c)
25. What ancient civilization was centered in Peru? (207c)
26. What is the predominant race in Peru today? (208a)
27. Quechua and Aymara are what with relation to Peru? (208a)
28. What is distinctive about Uruguay's size? (208b)
29. Locate Uruguay. (208b)
30. What city is Uruguay's capital? (208b)
31. The larger part of Uruguay's population is of what nationalities? (208b)
32. Give the location of Venezuela. (208c)
33. What does Venezuela mean? (208c)
34. Name the Venezuelan capital. (208c)
35. In what resource is Venezuela particularly rich? (208c)
36. Where is British Guiana? (209a)
37. Name the capital of British Guiana. (209a)
38. How is British Guiana administered? (209a)
39. What is Surinam? (209b)
40. The chief city of French Guiana is what? (209b)
41. Locate Devil's Island. (209c)
42. Where are Trinidad and Tobago? (209c)
43. What importance attaches to Port au Spain? (209c & 210a)

44. To what country do Trinidad and Tobago belong?
(210a)
45. Locate the Falkland Islands. (210a)
46. To whom do the Falklands belong? (210a)
47. Name two other island groups included in the Falklands
for administrative purposes. (210a)
48. Curaçao is where? (210b)
49. What is Curaçao's capital? (210b)
50. What other islands are included in the Curaçao group?
(210b)

QUIZ No. 12

EUROPE—I

1. On what peninsula is Portugal located? (210c)
2. What is Portugal's capital? (210c)
3. Name two island groups that are politically a part of Portugal. (210c & 212a)
4. Spain's capital is what city? (212b)
5. What Mediterranean islands are a province of Spain? (212b)
6. What is Ceuta? (212c)
7. List three boundaries of France. (213a)
8. What are the political divisions of France called? (213b)
9. Name a Mediterranean island that is part of France. (213b)
10. Give three examples of political divisions within the British Empire. (214a)
11. Approximately, what is the total population of the British Empire? (214a)
12. What was the first region in the New World to become part of the British Empire? (214a)
13. The United Kingdom includes what? (214b)
14. Name five important cities of England. (214c)
15. How is England governed? (215a)
16. Give two islands that are part of Scotland. (215b)

17. What is the political relationship of Scotland to England? (215b)
18. Where is Wales? (215c)
19. Into what two political units is Ireland divided? (215c & 216a)
20. What is another name sometimes used for Northern Ireland? (215c)
21. Give the official name for independent Ireland. (219b)
22. What is the capital city of independent Ireland? (219c)
23. Name the official language of Ireland. (216a)
24. Where is the Calf of Man? (216b)
25. Give the location of Gibraltar. (216c)
26. The Maltese Islands are situated where? (217b)
27. Describe the boundaries of Belgium. (220a)
28. What is the Belgian capital? (220a)
29. The great port of Belgium is what? (220a)
30. On what sea is The Netherlands? (221a)
31. Name the two governmental cities of The Netherlands. (221a)
32. What are the northern boundaries of Italy? (221c)
33. List four leading cities of Italy. (222b)
34. What countries border Switzerland? (222c)
35. Name the Swiss capital. (222c)
36. How is Switzerland organized politically? (223b)
37. Give the location of Austria. (223c)
38. What language is spoken in Austria? (223c)
39. Where is Liechtenstein? (224a)
40. Luxembourg is where? (224b)
41. What is unusual about Andorra? (224c)
42. Name the world-famous city located in Monaco. (225b)

43. San Marino, the "oldest state in Europe", is where?
(225c)
44. Give the location of Vatican City. (225c)
45. What is Germany's official title? (226b)
46. List five of Germany's important cities. (226b)
47. Is the population of Germany proper nearer to 50,000,-
000, 100,000,000 or 70,000,000? (226b)
48. On what peninsula is Denmark situated? (227a)
49. What is the Danish capital? (227a)
50. What city of Denmark was made famous by a Shake-
spearean play? (227b)

QUIZ No. 13

EUROPE—II

1. Of what country is Reykjavik the capital? (227c)
2. Trace the borders of Norway. (228b)
3. What kind of government does Norway have? (228b)
4. Name the capital city of Sweden. (229a)
5. Give three cities of Sweden. (229a)
6. The capital of Finland is what? (229b)
7. Where is Estonia located? (229c)
8. What is the Estonian capital? (229c)
9. Where is Latvia? (230b)
10. Locate Lithuania. (230c)
11. Kaunas is the capital of what Baltic country? (230c)
12. How many times has Poland been partitioned? (231a)
13. What is Poland's capital city? (231a)
14. What is meant by the Polish Corridor? (231a)
15. Where is the Free City of Danzig? (231c)
16. Give three of the boundaries of Czechoslovakia. (232a)
17. Name the Czech capital. (232a)
18. What was the name of the ancient Czech Kingdom?
(232b)
19. To what country does the name Magyar apply? (232c)
20. What is unusual about the city of Budapest? (233a)

21. Under what form of government do Hungarians live? (233b)
22. How was the present Rumania formed? (233b)
23. Give Rumania's location. (233c)
24. Name the Rumanian capital. (233c)
25. What city is the capital of Yugoslavia? (234a)
26. Of what racial groups does the population of Yugoslavia consist? (234a)
27. For what is Sarajevo famous? (234b)
28. Name the Albanian capital. (234c)
29. Locate Bulgaria. (235a)
30. What is Bulgaria's capital? (235a)
31. What type of government does Bulgaria have? (235a)
32. From what language stock does the Bulgarian tongue stem? (235b)
33. Trace the boundaries of Greece. (235b)
34. The Greek capital is what city? (235b)
35. Where is Mount Athos? (235c & 236a)
36. Name three modern cities of Greece. (236a)
37. Turkey was formerly what empire? (236b)
38. What is the capital of modern Turkey? (236c)
39. List four Turkish cities. (237a)
40. Give Russia's full official name. (237b)
41. What city is called the "nerve center of the Soviet Union"? (237c)
42. Name the city which is the center of Russian science and research. (237c & 238a)
43. How many constituent republics does Russia have? (238a)

44. The Byelo-Russian Soviet Socialist Republic is more familiarly known as what? (238b)
45. Which is the most densely populated of the Soviet republics? (238c)
46. Locate the most important oil fields of Russia. (239a)
47. Tiflis is the capital of what Soviet republic? (239b)
48. In what Russian republic is the great Kara Kum Desert? (239b)
49. Stalinabad is the chief city of what republic in Russia? (239c)
50. What five areas were added to Russia as constituent republics in 1940? (240a)

QUIZ No. 14

ASIA

1. Name four countries bordering on China. (241c)
2. What city was the capital of China during the Second World War? (241c)
3. Give the estimated population of China. (241c)
4. What city has long been China's chief industrial and commercial center? (242a)
5. List five leading Chinese cities. (242c)
6. Where is Mongolia? (242c)
7. Describe the location of Tibet. (244b)
8. How is Tibet governed? (244b)
9. In round numbers, what is the population of the Japanese Empire? (244c)
10. What is Japan's form of government? (245b)
11. How is Korea related to Japan? (245b)
12. Locate Kwantung. (245c)
13. Formosa is situated where?
14. List some of the Pacific islands over which Japan holds a mandate. (246b)
15. Can you tell where Karafuto is? (246c)
16. What is the capital of Manchukuo (Manchuria)? (247b)

17. Give the names of three political divisions in Syria.
(247c)
18. Palestine's capital is what city? (248b)
19. What languages are spoken in Palestine? (248b)
20. Where is Trans-Jordan? (249a)
21. Give the location of Cyprus. (249b)
22. Trace the borders of Arabia. (249c)
23. What is Saudi-Arabia? (250a)
24. Yemen is in what part of Asia? (250c)
25. What Arabian animals are bred in Oman? (251a)
26. Where do the Bahrein Islands lie? (251b)
27. Tell where Aden is. (251b)
28. Name the capital of Iraq. (251c)
29. Of what country is Teheran the capital? (252b)
30. In what area is Afghanistan situated? (252c)
31. How is Afghanistan governed? (253a)
32. The capital of India is what? (253a)
33. How many people are there in India? (253a)
34. Name five of India's chief cities. (255a)
35. Where is Baluchistan? (255a)
36. The chief port and capital of Burma is what city?
(255c)
37. Colombo is the capital of what? (256a)
38. Name a French dependency in India. (257a)
39. What is the new name of Siam? (257c)
40. What areas are included in British Malaya? (258a)
41. Give the capital of the Straits Settlements. (258a)
42. What is British North Borneo? (259b)
43. Locate Brunei. (259b)

44. What territory is the "land of the white Rajah"? (259b)
45. Name the capital of French Indo-China. (259c)
46. Trace the boundaries of French Indo-China. (259c)
47. Give the names of two areas within Hongkong. (260b)
48. Macao is a possession of what country? (260c)
49. Which of the Netherlands Indies islands is the most densely populated? (261b)
50. What is the capital of the Netherlands Indies? (261b)

QUIZ No. 15

AUSTRALIA AND OCEANIA

1. Politically, what is Australia? (261c)
2. How is Australia divided? (261c, 262a & b)
3. What city is the capital of New South Wales? (262a)
4. Melbourne is in what Australian area? (262a)
5. Locate Brisbane. (262a)
6. Where is Adelaide? (262a)
7. Give the name of West Australia's chief city. (262a)
8. Tasmania is where in relation to Australia? (261c)
9. What is the Tasmanian capital? (262b)
10. Name the two areas of Australia which are called territories. (262b)
11. The capital of all Australia is what? (262c)
12. Where is Papua? (262c)
13. Port Moresby bears what relation to Papua? (262c)
14. How is Papua administered? (262c)
15. Locate the Territory of New Guinea. (262c)
16. What is included in New Guinea? (264a)
17. Norfolk Island is situated where? (264a)
18. What country formerly held Nauru Island? (264b)
19. Give the general location of New Zealand. (264c)
20. What are the principal areas of New Zealand? (264c)

21. What is the political set-up of New Zealand? (265a)
22. Name New Zealand's capital. (265b)
23. Where are the Fiji Islands? (266b)
24. What is the administrative center of the Fijis? (266b)
25. Who governs the Fijis? (266b)
26. What is the more common name for the Tonga Islands?
(266b)
27. Locate the Solomon Islands. (266c)
28. How are the Solomon Islands related to Britain? (266c)
29. Name four islands in the Solomon group. (266c)
30. Santa Cruz Islands are where? (266c)
31. What is the location of the New Hebrides? (266c)
32. Who administers the New Hebrides? (267a)
33. Name two islands in the Gilbert and Ellice Islands
Colony. (267a)
34. What about the administration of the Gilbert and Ellice
islands? (267a)
35. Where is Pitcairn? (267b)
36. Who established the first settlement on Pitcairn? (267b)
37. New Caledonia is in what region? (267c)
38. Name two dependencies of New Caledonia. (267c)
39. Give the names of three islands administered from Tahiti.
(268a)
40. What is the capital of Tahiti? (268a)
41. Where is Portuguese Timor? (268b)
42. Dilli is the capital of what area? (268b)
43. What are the subdivisions of Antarctica called? (268c)
44. What are Enderby, Victoria, Ross and Weddell with
reference to Antarctica? (268c)

45. Who controls the Falkland Islands Dependency? (268c)
46. New Zealand governs what Antarctic region? (268c)
47. South Victoria Land is claimed by what country? (268c)
48. Name two Antarctic areas claimed for the United States by Admiral Byrd. (268c & 269a)
49. Where does Graham Land lie? (269a)
50. What European nations besides Britain claim territory in Antarctica? (269a)

QUIZ No. 16

AFRICA

1. Name three political divisions of the Union of South Africa. (269c)
2. What is the capital of the Union of South Africa? (270a)
3. Give the location of Basutoland. (270c)
4. Who are the Bantus? (270c)
5. Where is Swaziland? (270c)
6. What is Bechuanaland? (270c)
7. Locate Southern Rhodesia with relation to South Africa. (272a)
8. Salisbury is the capital of what African area? (272b)
9. Northern Rhodesia is a colony of what nation? (272b)
10. Where is Nigeria? (272b)
11. Give the general location of the British Cameroons. (272c)
12. Of what does Gambia consist? (272c & 273a)
13. In what section of Africa is the Gold Coast? (273b)
14. How was Togoland added to the British Empire? (273b)
15. Where would you go to visit Sierra Leone? (273c)
16. Name the capital city of Kenya Colony. (274a)
17. Tanganyika is situated where? (274b)
18. Where is Uganda Protectorate? (274c)

19. What particular animal abounds in the Uganda? (274c)
20. Locate British Somaliland. (275b)
21. Berbera is the capital of what territory? (275b)
22. Where is Seychelles, and what is it? (275b)
23. In relation to Africa, where is Ascension? (275c)
24. Trace the boundaries of Algeria. (276b)
25. What is the Algerian capital? (276c)
26. What is Tunis? (276c & 277a)
27. What ancient city stood where Tunis is now? (277a)
28. How is Morocco divided politically? (277b)
29. Name the capital of French West Africa. (277c)
30. Give four of the seven areas of French West Africa.
(277c & 278a)
31. By what other name is French Equatorial Africa known?
(278b)
32. Brazzaville is the chief city of what? (278b)
33. Where is French Cameroon? (278c)
34. Locate French Somaliland. (279a)
35. Tananarive is where? (279b)
36. How would you get to Réunion? (279b)
37. Give another name for Mozambique. (279c)
38. Give the boundaries of Libya. (280c)
39. What are the capitals of Libya? (280c)
40. In what section of Africa is Eritrea? (280c)
41. Spanish Morocco is where with reference to Spain?
(281b)
42. Locate Tangier. (281b)
43. Leopoldville is the capital of what Congo? (282b)
44. How is the Anglo-Egyptian Sudan administered? (282c
& 283a)

45. Describe the place occupied by Egypt on the African continent. (283b)
46. What is Great Britain's relation to Egypt? (283c)
47. Give the location of Ethiopia. (284a)
48. Where is Liberia? (284b)
49. Who founded Liberia? (284b)
50. Name the Liberian capital. (284c)

QUIZ No. 17

TRADE AND TRADE ROUTES

1. How did man live before trade developed? (285b)
2. Explain how modern trade has extended man's horizons. (285c)
3. What are "tramp ships"? (285c)
4. To what does the term merchant marine apply? (285c)
5. Speaking of shipping routes, what does "Great Circle" signify? (286a)
6. How many "circle" routes are there? (286a)
7. Name the terminal ports of the "circle" routes. (286a)
8. Why are the "circle" courses so called? (286a)
9. What use do trading companies serve? (286b)
10. Identify Amtorg. (286b)
11. Name the company that helped establish Britain's sway over India. (286b)
12. Who were the "Merchant Adventurers"? (286b)
13. What were the purposes of the "Merchant Adventurers"? (286c)
14. In particular, what route was especially sought by men of the "Merchant Adventurer" group? (286c)
15. Trace the most direct sea route from Britain to India. (286c)
16. Is the distance from London to Bombay closer to 6,000 miles, 8,000 miles or 12,000 miles? (286c)
17. More than half the world's peace-time trade has been concentrated on what ocean? (286c)

18. What is the busiest course on the Atlantic? (286c)
19. By what development has the trade route between New York and the west coast of South America been shortened by 3,700 miles? (288a)
20. What was the old route from New York to the South American west coast? (288a)
21. What American canal carries more commercial traffic each year than either the Panama or Suez canals? (288a)
22. Name three of the chief products you might find on Great Lakes vessels. (288b)
23. What products are carried by tankers and by colliers? (288b)
24. What is the purpose in building special types of ships? (288b)
25. With what trade is "The Great White Fleet" associated? (288b)
26. What products would you most likely find on a tramp steamer taking cargoes for Europe at a Latin-American port? (288c)
27. In what trade is the Grace Line active? (288c)
28. With what route would you associate the Cunard-White Star Line? (288c)
29. The United States Line plies what route? (288c)
30. Where have Lloyd-Triestino ships principally traveled? (288c)
31. What new route is being developed between the United States and Russia? (289a)
32. What type of ship is necessary for the new route to Russia? (289a)
33. Ocean air transportation has been developed in the Pacific and Atlantic by what American organization? (289b)

34. Name four continents touched by American transport planes. (289b)
35. What is the chief inland waterway of the United States? (289b)
36. What part do tributaries play in inland waterways? (289b)
37. Egypt is associated with what great water highway? (289c)
38. What is the great water trade route of southeastern Europe? (289c)
39. Germany relies on what water transportation for her inland trade? (289c)
40. Name two important northern river routes of South America. (289c)
41. What is a southern South America inland water course? (289c)
42. China carries on much of its commerce over what route? (289c)
43. What type of vessel is responsible for China's water commerce? (289c)
44. Name the eastern terminus of the Trans-Siberian Railway. (290a)
45. What city is at the west end of the Trans-Siberian? (290a)
46. Name the railroad used in Japanese economic penetration into north China. (290a)
47. What primitive method is still used for transport in some parts of the world? (290b)
48. How are goods transported in Tibet? (290b)
49. What type of transportation is used extensively in North Africa? (290b)
50. What animals are used for transport in undeveloped countries of Europe and Asia? (290b)

QUIZ No. 18

FOOD—BEVERAGES—SPICES—UNUSUAL FOODS

1. What is the chief food product of western man? (290c)
2. What region of North America is one of the greatest wheat areas in the world? (290c & 292a)
3. Where is the "breadbasket" of Europe? (292a)
4. What do the terms "winter wheat" and "spring wheat" mean? (292b)
5. The first successful crop grown in the United States was what? (292c)
6. What food crop takes up more land in the United States than any other? (292c)
7. Locate the "Corn Belt". (293a)
8. What continent grows the largest amount of rye? (293a)
9. What is a "paddy field"? (293b)
10. Tell the characteristic appearance of mountainous land used for growing rice. (293b)
11. Where in the United States is rice grown? (293c & 294a)
12. What country usually comes to mind with the mention of potatoes? (294b)
13. What two states in the United States are famous for their potatoes? (294b)
14. What did Napoleon have to do with the development of the sugar industry? (294c)

15. Name the island that is the world's greatest sugar producer. (294c)
16. Which section of the United States is the center of the country's cane-sugar industry? (294c)
17. Name three by-products of sugar cane. (295a)
18. What is the "Peach State" of the United States? (295a)
19. To what climate would you go to grow citrus fruits? (295a)
20. What makes southern Europe a fruitful source of wines? (295b)
21. The Hawaiian Islands have great plantations for the growing of what fruit? (295b)
22. What regions grow peanuts? (295c)
23. Name a South Sea fruit that is similar to the potato. (295c)
24. What is copra? (295c)
25. From what kind of plant does vanilla come? (296a)
26. The largest part of the world's coffee comes from what country? (296c)
27. Name three other places in the world where coffee is grown. (296c)
28. What country is the biggest importer of coffee? (296c)
29. Tea is produced largely by what nation? (297a)
30. How are different varieties of tea accounted for? (297c)
31. Name four varieties of tea. (297c)
32. What is yerba maté? (297c & 298a)
33. What two countries consume the greatest amount of cocoa? (298a)
34. Where are the chief sources of cocoa? (298b)

35. What West Indies island has given its name to a variety of rum? (298b)
36. How is rum made? (298b)
37. Where is tequila a popular beverage? (298c)
38. With what country is Tokay wine associated? (298c)
39. What is the national beverage of Japan? (298c)
40. Give another name for schnapps. (298c)
41. From what is vodka made? (299a)
42. Name a pepper that comes from the West Indies. (299b)
43. Ginger is produced from what? (299b)
44. What bean is used as food in the Orient? (299b)
45. Where are cloves grown? (299b)
46. The leaves of what plant widely grown in the United States are used in flavoring what popular southern drink? (299c)
47. Give the source of licorice. (299c)
48. What food, from whales and other sea animals, is eaten by Eskimos? (299c)
49. In what nation are snails eaten as a delicacy? (299c)
50. Raw fish is considered appetizing in what Asiatic country? (300a)

QUIZ No. 19

TEXTILES—DOMESTICATED ANIMALS

1. Why is textile manufacturing usually centered in fairly damp regions? (300a)
2. Where is the great textile manufacturing region of the United States? (300a)
3. What is "king" in the United States so far as textiles are concerned? (300b)
4. Distinguish between Sea Island and Upland cotton. (300b)
5. Name three countries outside the United States which produce large amounts of cotton. (300c)
6. What trade is centered in Manchester, England? (301a)
7. Canvas, calico, cretonne and muslin have what material in common? (301b)
8. Where is the world's foremost supply of raw wool obtained? (301c)
9. What is Canada's principal role in the textile world? (301c)
10. Explain how the word "spinster" developed. (301c & 302a)
11. Name two countries of England famous for their woolen and cotton goods. (302a)
12. What fabric is named for the largest river of Scotland? (302a)
13. To what are the names Cheviot, Cotswold, and Leicester applied? (302b)

14. Name three animals besides sheep from which wool is obtained. (302b)
15. With what material is the mulberry tree associated? (302c)
16. What countries produce most of the world's raw silk? (302c)
17. Why has raw silk production been centered in a particular part of the world? (302c)
18. What nation is the largest manufacturer of silk products? (302c)
19. Paterson, New Jersey, occupies what important place in the textile field? (303a)
20. What is shantung? (303a)
21. Name a textile made chemically from a wood base. (303a)
22. From what plant is linen made? (303b)
23. Give the chief reason for the minor character of the American linen industry. (303b)
24. List three countries that have won renown for carpets. (303c)
25. What do jute, hemp and sisal have in common? (303c)
26. What would be the principal use of cattle if they were Shorthorns, Herefords, Aberdeen Angus, or Galloways? (304a)
27. Fine beef cattle are raised in what South American country? (304a)
28. Where is the United States packing industry centered? (304b)
29. What do Jersey, Guernsey, and Holstein have in common? (304b)
30. Denmark, Switzerland, and Wisconsin specialize in what cattle products? (304c)

31. What country regards certain kinds of cattle as religious symbols? (304c)
32. From what animal does veal come? (304c)
33. Name the wild cattle once found in the American west. (305a)
34. Where is the water buffalo used for working the fields? (305a)
35. Name the chief food products obtained from hogs. (305a)
36. Is the larger part of the world's sheep farming carried on north or south of the equator? (305b)
37. Why is England a great mutton-eating country? (305b)
38. For what is the skin of goats used? (305c)
39. What state of the United States is noted for its race horses? (305c)
40. Identify Percherons. (305c)
41. What island county of Scotland has bred what particular type of horse? (305c)
42. Plymouth Rock, Rhode Island Red, and Cochin designate what in the farm world? (305c & 306a)
43. Name three breeds of dogs which bear the names of parts of the British Isles. (306a)
44. The caribou is found mainly in what region? (306b)
45. Alaska has imported what animal to provide food and clothing for the Eskimos? (306b)
46. Where is the yak the chief beast of burden? (306b)
47. What is a "ship of the desert"? (306c)
48. What domesticated animal is peculiar to the Andes regions as a beast of burden? (306c)
49. Why is the alpaca highly prized? (306c)
50. What is an ibex? (307a)

QUIZ No. 20

FISH—GAME—WILD ANIMALS—FURS—SKINS—HIDES

1. What do Fulton and Billingsgate have in common? (307b)
2. Fish is the principal food of what Oriental nation? (307b)
3. What Mediterranean island has given its name to a popular variety of edible small fish? (307c)
4. What variety of fish is caught off the Grand Banks? (307c)
5. Chesapeake Bay is a center for what particular branch of the sea-food industry? (307c)
6. The Pacific Northwest of the United States is noted for what fish product? (308a)
7. The canning of what fish gives Alaska a leading export industry? (308a)
8. From what United States areas does tuna come? (308b)
9. What fresh-water fish provides good sport and a tasty meal? (308b)
10. Identify anchovy. (308b)
11. Where are the largest lake fisheries in the world? (308b)
12. Norwegians have specialized in what branch of the fishing industry? (308c)

13. What material used in cleaning provides a whole fishing industry in itself? (308c)
14. An iguana is what? (308c)
15. What animal has a name that suggests its armor covering? (309a)
16. Name two varieties of animals that carry their young in a pouch. (309a)
17. Where is the panda found in its native state? (309b)
18. Large brown bears are found in what American territory? (309b)
19. What wild animals still abound in the northeastern United States? (309b)
20. The moose is native to what region? (309b)
21. Name a familiar prairie animal of the western United States. (309c)
22. Where is the gnu found? (309c)
23. What animal gives its name to a person who stuffs food greedily? (309c)
24. Which regions of the earth produce the most furs? (310a)
25. Why is Russia the home of so many fur-bearing animals? (310a)
26. What part of the United States is the nation's leading fur-producing region? (310b)
27. The principal fur market of the United States is what city? (310b)
28. What famous company established the first fur-trading post in Canada? (310b)
29. Tell the modern method of raising furs for marketing. (310c)

30. Most of North America's fur seals have come from where? (310c)
31. Name the four colors most prominent in identifying fox furs. (310c)
32. Where would the fur for a mink coat most likely come from? (311a)
33. If you were hunting sable, what kind of animals would you look for? (311a)
34. What Asiatic member of the cat family helps clothe women warmly and stylishly? (311b)
35. Give the distinguishing marks of ocelot fur. (311b)
36. Where is the true lynx found? (311b)
37. Name an animal unpleasant to meet but pleasant to wear. (311c)
38. What are "coon-skin" hats? (311c)
39. The fur of what North American wild animal is often used as an ornamental rug? (311c)
40. Name some of the principal sources of hides. (312a)
41. What is the tanning process? (312a)
42. Give three principal sources of leather. (312a)
43. For what product are Lynn and Brockton noted? (312b)
44. Goatskin is often used for what part of a shoe? (312b)
45. From what is artificial leather made? (312b)
46. How is leather used in machinery? (312c)
47. Name one skin and one hide associated with American sports. (312c)
48. What reptile is raised on "farms" to provide fancy skins? (312c)
49. Identify a fish that contributes to the leather supply. (312c)
50. What is a peccary? (313a)

QUIZ No. 21

MINERALS—PRECIOUS STONES—METALS— PETROLEUM—COAL

1. How is iron ore obtained? (313a)
2. What is steel? (313a)
3. What southern state of the United States contains rich iron ore deposits? (313b)
4. What two countries have led the world in exports of iron ore? (313c)
5. For what is chromium used in industry? (313c)
6. In what part of the world is tungsten produced in sizable quantities? (316a)
7. Name the largest copper-producing nation. (316b)
8. Why does Japan use so much scrap metal? (316c)
9. Aluminum is important because of what property? (316c)
10. What makes the north coast of South America important to aluminum manufacturers in the United States? (316c & 317a)
11. Where are the world's greatest tin fields? (317a)
12. Does the United States contain 10%, 40% or 70% of the known lead ore in the world? (317c)
13. Where is most of the lead in the United States mined? (318a)
14. Name the chief uses of manganese. (318b)

15. Almost 90% of the world's nickel is produced in what country? (318b)
16. What non-metallic mineral is usually linked with Delft, Holland, and Dresden, Germany? (318c)
17. What mineral is used as fire-proofing? (318c)
18. What is vanadium? (319a)
19. By what accident were diamonds discovered in South Africa? (319b)
20. How is Amsterdam, Holland, connected with the diamond industry? (319c)
21. What unit of measure is used in weighing precious stones? (319c)
22. What do Kohinoor, Great Mogul, Hope and Cullinan refer to? (320a)
23. Hard work is assigned to what valuable gems? (320a)
24. Where in Russia are precious stones found? (320b)
25. Most sapphires come from what part of the world? (320c)
26. What country in South America supplies emeralds? (320c)
27. Where are amethysts found? (320c)
28. What feature of porphyry makes it valuable in architecture? (321a)
29. How are pearls formed? (321b)
30. China is associated with what decorative stone? (321b)
31. What is "placer mining"? (321c)
32. Where is the leading gold-producing area of the world? (321c)
33. Which continent supplies most of the world's silver? (322a)
34. "Little silver" is what valuable metal? (322b)

35. Name the two chief sources of platinum. (322c)
36. Give the derivation of the word petroleum. (322c & 323a)
37. List three regions of the world that contain great oil resources. (323a)
38. Locate the chief oil regions of the United States. (323b)
39. What does "cracking" mean in the oil industry? (323c)
40. Where does the crude oil for the refineries of Aruba and Curaçao come from? (326a)
41. What British oil fields are served by a pipeline terminating at Haifa? (326b)
42. Name the gas, found in oil regions, that is used in dirigibles. (326b)
43. What is coal? (326c)
44. Name three countries besides the United States that produce large amounts of coal. (326c)
45. Tell the difference between anthracite and bituminous. (326c)
46. Which type of coal is used chiefly in steel mills? (327a)
47. Where is the largest bituminous field in the world? (327a)
48. Locate the Saar Basin. (327b)
49. What is lignite? (327c)
50. Why is coal tar valuable? (328a)

QUIZ No. 22

TIMBER—BUILDING MATERIALS—PAPER—TOBACCO—RUBBER

1. Most of the newsprint used in the United States has been made where? (328b)
2. How do trees play an important part in soil conservation? (328b)
3. What is the value of reforestation? (328b)
4. In what part of the United States are the greatest virgin forests found? (328c)
5. Give three logging states of the United States. (329a)
6. Where is Douglas fir cut? (329a)
7. Name the chief lumber product of the southern United States. (329a)
8. Where are the great redwood forests of the United States? (329b)
9. Grand Rapids is famous for what wood products? (329c)
10. What does coniferous mean? (329c)
11. In timber talk, what does "naval stores" signify? (329c)
12. What are tanbarks? (330a)
13. Is Great Britain well stocked or poorly stocked in timber? (330b)
14. What section of Europe contains the largest timber stands? (330b)

15. Where have most of the world's matches been made?
(330b)
16. From what does cork come? (330c)
17. Name a fragrant wood used in Asia for decorative uses.
(330c)
18. What wood is associated chiefly with China and Japan?
(330c)
19. Where is the world's principal supply of teakwood?
(331a)
20. What single building material outstrips all others in the
extent of its use? (331b)
21. What common building material is made by heating clay
in kilns? (331b)
22. Carrara, Italy, produces what fine building material?
(331c)
23. What do limestone and marble have in common? (331c)
24. Give the difference between cement and concrete. (332a)
25. What is adobe? (332b)
26. On what West Indies island are the most important
asphalt deposits in the world? (332b)
27. In what country is paper used extensively in the con-
struction of homes? (332c)
28. Name two materials from which paper can be made if no
wood is available. (333a)
29. Which of the three trees—spruce, hemlock or fir—is
used most in making paper? (333a)
30. What do Manila hemp and Manila paper have in com-
mon besides their names? (333b)
31. How is tobacco produced? (333b)
32. Which states of the United States are among the leading
tobacco-producing areas of the world? (333c)

33. In what regions of the world are famous blends of tobacco produced? (333c)
34. Tobacco is one of the chief crops of what Pacific territory of the United States? (333c)
35. What is latex? (334b)
36. How did rubber get its name? (334c)
37. What climatic conditions are necessary for good rubber plantations? (334c)
38. How long does it take a rubber tree to mature? (334c & 335a)
39. Where were wild rubber trees first found in abundance? (335a)
40. What European power, besides the British, took up intensive plantation production of rubber in Asia? (335b)
41. What region has led all others in the export of crude rubber? (335c)
42. Name two rubber-producing islands of the East Indies. (335c)
43. What continent, besides Asia and South America, has a place in the rubber market? (336a)
44. What does vulcanizing do to rubber? (336b)
45. What country has led the world in the importation of rubber? (336b)
46. Name the "rubber capital" of the United States. (336b)
47. Give reasons why synthetic rubber might be preferable to natural rubber. (336c)
48. What is guayule? (337a)
49. Name a product that forms a close link between rubber and chewing gum. (337b)
50. Identify gutta-percha. (337c)

GENERAL QUIZ No. 1

1. Name two parts of the British Empire on the North American continent. (176a)
2. Which is longer, the distance around the earth at the equator or the distance through the poles? (102a)
3. For what product is the Merino sheep noted? (302b)
4. Where is the Mount of Olives? (142c)
5. Locate Brunei. (259b)
6. How long does it take the earth to make one complete revolution around the sun? (101c)
7. What is the capital of Jamaica? (200c)
8. Name the chief city of Latvia. (230b)
9. Chicago contains what great animal market? (304b)
10. Where is Mauritius? (275b)
11. What bodies of water are connected by Mackinac Strait? (130c)
12. Locate the Maldiv Islands. (256b)
13. Give two ways of getting oil from the earth. (323a)
14. Of what area is Tegucigalpa the capital? (199a)
15. What continent is at the bottom of the world? (109a)
16. Davis Strait is situated where? (131a)
17. What is Guadeloupe? (202b)
18. To what does the "Rand" of South Africa refer? (322a)

19. From where are the islands that constitute New Caledonia administered? (267c)
20. Identify a European peninsula occupied by two countries. (125b)
21. What is India rubber? (334c)
22. Who governs Bechuanaland? (270c & 272a)
23. Name a volcano on the same island with Kilauea. (167b)
24. Para and Manaos are important for what? (335a)
25. Give the general location of Ellesmere Island. (115b)
26. Where is most of the world's rice grown? (293c)
27. What is Costa Rica's form of government? (198c)
28. In what part of the United States do tornadoes occur most frequently? (171b)
29. Define sericulture. (302c)
30. In what way has Iceland been related to Denmark? (227c)
31. Near what state is Mt. Desert Island? (114c)
32. Name the capital city of the Gold Coast. (273b)
33. Describe the government of Albania. (234c)
34. Paterson, New Jersey, is often compared to what French city? (303a)
35. Where are the Friendly Islands? (266b)
36. For what is Bryce Canyon famous? (162c)
37. Give four cities of Palestine. (248c)
38. What is the capital of Afghanistan? (252c)
39. Where is Hainan? (119b)
40. Identify a cormorant. (307b)
41. The people of Honduras are predominantly of what race? (199a)
42. Where is the "Valley of 10,000 Smokes"? (166b)

43. The Strait of Otranto is where? (133c)
44. What is the most widespread use of leather? (312b)
45. Name the gulf that forms the southern entrance to the Red Sea. (150a)
46. Give two colonial possessions of Spain. (213a)
47. For what is Oberammergau known? (226c)
48. What large lake in Canada has the same name as a leading Canadian city? (152c)
49. What was the material that gave paper its name? (332c)
50. Where is the richest copper region in the United States? (316b)

GENERAL QUIZ No. 2

1. Name two cities in Hejaz which are sacred to Mohamedans. (250b)
2. What is the easternmost point of Newfoundland? (123c)
3. What are cubebs? (334a)
4. The Matterhorn is in what country? (139b)
5. Name the capital of Nigeria. (272b)
6. What products are obtained from cotton seed? (301b)
7. Which small European country occupies a peninsula all to itself? (124b)
8. Czechoslovakia contains what national groups of peoples? (232b)
9. Where are the chief sources of cork? (330c)
10. In what West Indies island is Guantanamo Bay? (148a)
11. Locate Spitsbergen. (228c)
12. What animals traveling in packs are feared in northern areas? (309c & 310a)
13. What connects the Mediterranean with the Sea of Marmora? (127b)
14. Describe the government of New Zealand. (265b)
15. Where is the heart of the linen industry? (303b)
16. Name an important valley in Alaska. (144b)
17. Papua is known by what other name? (262c)

18. Where would you go to find a good supply of ebony?
(331a)
19. Locate the Merinsky Canal. (146b)
20. List three important cities in Scotland. (215b)
21. Where does most of the olive oil used in cooking come from? (296a)
22. Where in North America is the Sierra Madre range?
(135c)
23. How is Northern Ireland governed? (216a)
24. The bark of what tree was used in early American canoes? (329c)
25. Where is Novaya Zemlya? (122b)
26. What are the main religious groups in Palestine? (248c)
27. Asia and Africa have what important uses for elephants?
(306c)
28. Name the westernmost promontory of Africa. (125b)
29. What islands are included in the New Hebrides group?
(266c & 267a)
30. Where is vanilla produced? (296a)
31. What is the "heat equator"? (170c)
32. Name the capital of Bermuda. (116a)
33. The skins of what animals are often worn by ranchers?
(311b)
34. What large lake touches New York State, Vermont and Canada? (152b)
35. Palma is the capital of what islands? (212b)
36. India has contributed what highly spiced food to the world's epicures? (299a)
37. Why is it warmer near the equator than at the poles?
(170c)

38. Name three possessions of France on or near the North American continent. (176a)
39. What do Aberdeen, Hull and Yarmouth have in common? (307b)
40. Is Great Salt Lake the greatest salt lake in the world? (154c)
41. Where is Asir? (250b)
42. What malt liquor would you associate with England? (298c)
43. Where is Easter Island? (118c & 119a)
44. Locate Weihaiwei. (260c)
45. Name three varieties of hardwood. (320a)
46. Identify the largest lake of Central America. (153a)
47. Give the location of Sikkim. (255a)
48. Where is the Tri-State Lead and Zinc District? (318b)
49. What land would be on either side of one traveling through the Torres Strait? (134c)
50. Give three districts in Syria. (247c)

GENERAL QUIZ No. 3

1. How many degrees of longitude are covered by a time zone? (105a)
2. What states were included in the Louisiana Purchase? (176c)
3. In what regions can wheat be grown successfully? (290c)
4. At which place does the sun rise first—Greenwich, England, or New York City? (105b)
5. How did the United States obtain the Panama Canal Zone? (177c)
6. What sea food is found in waters off Maryland and Virginia? (307c & 308a)
7. What strait, bearing the name of a fish, lies between Australia and Tasmania? (134c)
8. Who were the "people of the sun"? (208a)
9. Name the two types of crops that supply the world's sugar. (294c)
10. Identify the Anahuac Plateau. (144b)
11. What are the characteristic features of Yugoslavia's coastline? (234b)
12. Give another name for the gnu. (309c)
13. What valley of Germany has won fame for its wines? (145b)

14. Where is Hadhramaut? (251a)
15. What kind of wood is used in automobile bodies and wagons? (329a)
16. Locate the Cave of the Winds. (168c)
17. Where is Nepal? (256c)
18. What fur is sometimes passed off as true lynx? (311b)
19. What is a solstice? (170a)
20. Describe the form of Denmark's government. (227b)
21. What effect does transportation have on tea? (297c)
22. Where do typhoons usually occur? (171c)
23. Where is Iraq? (251c)
24. Name the world's greatest wheat-importing country. (292b)
25. Locate Lake Managua. (153a)
26. Why has Belgium been called the "Cockpit of Europe"? (220c)
27. What state produces most of America's anthracite coal? (326c)
28. Name two great river deltas in India. (146c)
29. To what nation do the Nicobar Islands belong? (255b)
30. In what parts of the world is pearl fishing most extensive? (321b)
31. The Dead Sea and Sea of Galilee form parts of the course of what river? (161c)
32. Name the larger islands of the Dutch East Indies. (261b)
33. In what sections of the United States are oil wells drilled in water? (323b)
34. India and Burma are separated by what body of water? (150b)

35. Locate Socotra. (251b)
36. What rushes for what metal occurred in 1849 and 1898? (322a)
37. Name another Grand Canyon in the United States besides that of the Colorado River. (163a)
38. Name at least one island or island group administered by New Zealand. (265a)
39. Why are sawmills generally located on rivers? (328b)
40. What is the largest lake in Great Britain? (153c)
41. Name two Mediterranean islands ruled by Italy. (221c)
42. What tree helps satisfy a sweet tooth? (329b)
43. Where is Lake Chad? (154a)
44. What people occupy Trans-Jordan? (249a)
45. Give two examples of coniferous trees. (329c)
46. In what countries would one find Lakes Van, Balkhash and Koko-Nor? (154b, 154c, 155a)
47. Who administers the Territory of New Guinea? (262c & 264a)
48. What nation is the greatest producer of petroleum products? (323b)
49. What do Pearl Harbor and Diamond Head have in common? (118b)
50. How is Basutoland governed? (270c)

GENERAL QUIZ No. 4

1. What island city is the seat of a Florida county? (114a)
2. Give a better known name for Iran. (252b)
3. What roofing material is produced in Pennsylvania and Vermont? (332a)
4. Where is the Mona Passage? (131b)
5. How are the Unfederated Malay States governed? (259a)
6. Tell Canada's principal role in the textile world. (301c)
7. Where is the waterfall called Splendor-of-Sun? (169a)
8. What Mediterranean island is a part of France? (213b)
9. Name the mineral, sometimes called Black Lead, used in pencils. (319a)
10. Locate the Mohave Desert. (163c)
11. How is Southwest Africa related to the Union of South Africa? (270b)
12. List five products other than milk and meat which come from cattle. (304c)
13. Greece is almost cut in two by what body of water? (149b)
14. Name the capital of Tibet. (244b)
15. What is bauxite? (316c)
16. Where is the Gulf of Martaban? (150b)

17. Denmark's only colonial possession is what? (227c)
18. Where are opals found? (320c)
19. What is the highest peak of the Appalachians? (138c)
20. Name three cities in Rumania. (233c)
21. In what part of Asia are the best developed coal deposits? (327c)
22. Describe the surface of the Sahara Desert. (165b)
23. What is Turkey's form of government? (236c)
24. Why is Baku important? (326b)
25. Where is Stromboli? (167a)
26. Name three areas added to the Soviet Union in 1940. (240)
27. From what tree do rosin and turpentine come? (329c & 330a)
28. Which Chinese river is longer, the Yangtze or the Yellow? (161a)
29. Locate the Leeward Islands. (200c)
30. Why did Brazil lose out as the leading rubber producer of the world? (335b)
31. Identify the Ebro River. (158c & 159a)
32. Where is Macao? (260c)
33. From what Indian Ocean island do the British obtain rubber? (336a)
34. When spring comes in New York, what season is beginning in Rio de Janeiro? (171b)
35. What is Eritrea's capital? (281a)
36. What countries are the chief source for the material of which American chewing gum is made? (337b)
37. Locate South Georgia Island. (116c)
38. Where is Angola? (279c)

39. For what is Kimberley noted? (319c)
40. Where are Mindanao and Panay? (119b)
41. Give the phrase most accurately describing the political make-up of the British Empire. (214b)
42. What central European iron-ore field lies partly in two countries? (313c)
43. What is the strait between Canada and the United States on the northern coast of Washington State? (130c)
44. What languages are spoken in Switzerland? (223a)
45. Where in the United States have rubies been found? (320b)
46. The Lofoten Islands are in what region? (122a)
47. Locate Kuwait. (250c)
48. What is the principal use of granite? (331b)
49. Give within 20 inches the greatest average annual rainfall in the United States. (172c & 173a)
50. Sarawak is located where? (259b)

GENERAL QUIZ No. 5

1. Where is Fridtjof Nansen Land? (122a)
2. By what country is Norfolk Island administered? (264a)
3. What island is noted for its cigars? (333c)
4. Where is the lake district of Italy? (154a)
5. Name two important cities in Bulgaria. (235a)
6. Identify corundum. (320b)
7. What is reputed to be the world's greatest underground cavern? (163b)
8. Who governs the Santa Cruz Islands? (266c)
9. What state in the United States produces a famous limestone? (331c)
10. In what part of the world is the Atacama Desert? (164c)
11. How is Kenya administered? (274a)
12. Name two regions of the United States rich in the metal necessary for the manufacture of steel. (313b)
13. Give the exact location of the Gulf of California. (148a)
14. Into how many provinces is China proper divided? (241c)
15. Is the amount of tin in a tin can more or less than 50%? (317b)
16. Are the Bermudas part of the West Indies? (115c)
17. What is the capital of the Bahamas? (200b)

18. What is lapis lazuli? (320c & 321a)
19. Asia contains what great desert? (165a)
20. To what European power are the Canary Islands attached? (212c)
21. Which continent is richest in coal deposits? (326c & 327a)
22. Locate the Lingayen Gulf. (150c)
23. What is the capital of Luxembourg? (224b)
24. For what products are Billiton and Banka islands noted? (317b)
25. Where is Glacier Bay? (164a)
26. The Althing is the parliament of what country? (227c)
27. What country ranks second in the world's supply of lead? (318a)
28. The Gulf of Alaska is part of what ocean? (148c)
29. What is Kazak with reference to Russia? (239c)
30. Tell one of the chief uses of iridium. (321a)
31. What West Indies volcano erupted in 1902 with a huge loss of life? (166b)
32. Name two concessions in Shanghai. (242b)
33. What Russian basin is usually associated with industrial activity? (327c)
34. Which is larger in width and depth, Niagara Falls or Victoria Falls? (169b)
35. The capital of Formosa is what? (246a)
36. From what is the best grade of paper made? (333a)
37. If you were an airplane pilot, would you be pleased or worried to see a high-pressure area on your route? (169c)
38. What are Pescadores? (246b)

39. What country of southeastern Europe is rich in oil?
(326a)
40. Name the two geographic lines which respectively separate the Torrid Zone from the North Temperate Zone and from the South Temperate Zone. (170a)
41. How many Federated Malay States are there? (258c)
42. Your daily newspaper contains what valuable forest product? (328b)
43. There are two islands named Trinidad. Where are they?
(116b)
44. Where is Zanzibar? (275a)
45. What is asphalt? (332b)
46. Desolation Island is at the entrance to what strait?
(116c)
47. Locate Tristan da Cunha. (275c & 276a)
48. What do Buna and Duprene have in common? (336c & 337a)
49. Where is Cebu? (119b)
50. Mozambique is situated where? (279c)

GENERAL QUIZ No. 6

1. Where are the Killarney Lakes? (153c)
2. What country caused a furere by marketing artificial pearls? (321b)
3. Name two cities in Estonia. (230a)
4. On what gulf are the Ivory and Gold Coasts? (150a)
5. To what does Uzbek apply? (239b)
6. What is peat? (327c)
7. What do New Britain, New Ireland, and New Hebrides have in common with regard to location? (117c)
8. How are the Windward Islands governed? (201a)
9. What fruit is obtained in quantity from Central America? (295b)
10. Locate the Lesser Sunda Islands. (117c)
11. Name two Portuguese colonies. (212a)
12. Identify balata. (337a)
13. What is The Wash? (132a)
14. Describe the difference in the governments of Inner and Outer Mongolia. (242c)
15. What by-product of oil fields is used for lighting and heating? (323a)
16. Hot springs and geysers are found in what Pacific areas? (168a)

17. What is Sinkiang? (244a)
18. Where was the first flowing oil well drilled? (323c)
19. Tutuila is situated in what islands? (118c)
20. Give the location of Kabinda. (280a)
21. Where are Russia's richest oil fields? (326c)
22. Taiwan is another name for what island? (119c)
23. How is Algeria divided politically? (276b)
24. Marble is a prized product of what New England state?
(331b)
25. What is the mistral? (171c)
26. Who administers Zanzibar? (275a)
27. What is the name given to straw-covered roofs? (332b)
28. Name Alaska's principal river. (157b)
29. Give the location of Korea. (245b)
30. What is used in making cement? (331c & 332a)
31. Where are the most famous natural bridges in the United
States? (163b)
32. The Spratly Islands are situated where? (246b)
33. What wood used in decorative furniture and also for
shipbuilding comes from southeastern Asia? (331a)
34. Where would you be in passing through The Minch?
(132c)
35. Locate Oman. (250c & 251a)
36. In what parts of the United States is bauxite found?
(316c)
37. Where are the Montmorency Falls? (168c)
38. For what have the Andaman Islands been used? (255b)
39. How did European explorers discover rubber? (334c)
40. To what nations does Sakhalin Island belong? (119c &
120a)

41. Give the capital of French India. (257a)
42. What invention helped make America the center of the cotton world? (300c)
43. Where is the Gulf Stream? (172b)
44. What is the capital of Thailand? (257c)
45. What other metallic ore is usually found with lead? (318b)
46. Would a sirocco warm you or cool you? (171c)
47. In what product are lime and gypsum used together? (318c)
48. Name two areas included in the Straits Settlements. (258b)
49. How does the United States rank as an exporter of coal? (327b)
50. What is the capital of Ethiopia? (284a)

MASTER QUIZ No. 1

1. What basic material do aspirin, carbolic acid, benzol and indigo have in common? (328a)
2. Name five cities in Egypt. (283c)
3. What is the name of the island chain extending from the Kamchatka Peninsula to northern Japan? (119c)
4. What is the capital of Korea? (245c)
5. Name the capital of French Somaliland. (279a)
6. Where is the sixth largest lake in the world? (155a)
7. In what places is the cocoa trade centered? (298b)
8. Labuan Island is where? (258b)
9. Does the Volga River flow north or south? (160b)
10. Where is the Strait of Bab el Mandeb? (134b)
11. Name the ocean current which serves the Pacific countries as the Gulf Stream serves the Atlantic. (172c)
12. List the provinces of Libya. (280c)
13. Name three islands associated with Napoleon. (121a)
14. What gulfs are named for two of Italy's leading sea-ports? (149c)
15. Name the planets in the order of their size, from the smallest to the largest. (101b)
16. Where is the world's highest waterfall? (169b)

17. Give the names of three lakes situated in Uganda Protectorate. (274c)
18. The Mekong River is in what part of Asia? (161b)
19. Locate Rio de Oro. (281c)
20. Of what is papier mâché made? (333b)
21. Where is the Isle of Man? (216b)
22. Locate Fernando Po. (120c)
23. Most of the rain in the United States comes from the evaporation of which of the following: Gulf of Mexico, Atlantic Ocean, Pacific Ocean? (172c)
24. In the Western Hemisphere, what island is touched by an ocean, a gulf and a sea? (115b)
25. What mineral used in making glass is found near water? (319a)
26. Give five uses of rubber. (334b)
27. Brooms and brushes are made from what agricultural product? (293a)
28. What is a veldt? (146b)
29. Which is longer, the Atlantic or Pacific coast of the United States? (176b)
30. Identify the Pripet Marshes. (231b)
31. What two states are leaders in the American wine industry? (298c)
32. On what ocean have "Empress" liners operated extensively? (288c)
33. Where would you locate Kota Bahru, Ipoh and Kuala Lumpur? (258c & 259a)
34. Acadia was the French name for what place? (196b)
35. On what British island would you visit Nicosia? (249b)
36. Where would you go to cross the Rubicon? (160a)

37. Where is the northernmost point in the United States?
(185a)
38. To what does the Spanish Main refer? (126b)
39. Give the location of the Mason-Dixon Line. (177b)
40. What does Hell Gate mean to a ship navigator approaching New York? (130b)
41. What is Mitsui? (290a)
42. What is shoddy made from? (302b)
43. The manufacture of what product has made Switzerland famous? (223b)
44. What European country has famous mercury mines?
(318a)
45. Locate Tannu-Tuva. (242c & 244a)
46. Name a territory within Spanish Morocco. (281b)
47. From what Arctic island have explorations to polar regions begun? (112c)
48. What is a continental slope? (110a)
49. Name the body of water formed where the northeast coast of Australia bends inward. (150c & 151a)
50. Describe a bight. (132c)

MASTER QUIZ No. 2

1. Name the Great Lakes in order of their size. (151c)
2. Where are the Cocos Islands? (120b)
3. Give the names of the two capitals of Saudi-Arabia. (250b)
4. Monaco has three so-called communes. Name two of them. (225b)
5. What climate factor makes the air trip from the United States to Europe faster than vice versa? (172b)
6. Distinguish between Tortuga and Dry Tortugas. (116b)
7. What is the most densely populated country in Europe? (220a)
8. Name ten American rivers bearing the names of states of the United States. (157a)
9. List five planets larger than the earth. (101b)
10. What product of the Far East is used to combat moths? (330c)
11. Santos is the world's greatest shipping center for what product? (296c)
12. What does "Mercator's Projection" mean, applied to maps? (104c)
13. The Vltava River is associated with what country? (158c)

14. Where did the United States fight the Barbary pirates? (277a)
15. Oporto is a principal source for what product? (299a)
16. Name the northernmost point of Alaska. (192c)
17. What is the difference between tung and tungsten? (316a)
18. What is mocha and where does it come from? (296c)
19. Commodore Matthew Perry opened what land to the world? (244c)
20. In what section of Europe is Lake Balaton? (153c)
21. Of the Pacific and Atlantic, which is bluer and which saltier? (111b)
22. What are pampas? (301c)
23. Geographically speaking, what are the doldrums? (172a)
24. What meteorological fame distinguishes Medicine Hat, and where is it? (195c)
25. Sandakan is the capital of what British island possession? (259b)
26. Harper's Ferry is located in what state? (191c)
27. 's Gravenhage is the native name of what European city? (221a)
28. Igorots are what on what islands? (193b)
29. Where did the Saracens of the Crusades dwell? (250a)
30. In what harbor is Sugar Loaf Mountain? (139a)
31. Identify Eupen and Malmedy. (220b)
32. Name the metals alloyed in pewter. (317c)
33. Where are the Jura Mountains? (139c)
34. Name the major bodies of water, including lakes and rivers, which form part of the boundaries of the continental United States. (151c, 156b, 157a, & 176b)

35. What metal used in an early stage of man's development chiefly accounts for the name "Bronze Age"? (316b)
36. Where are the Iron Gates? (159c)
37. Tell where Mt. Sinai is situated. (142c)
38. Perth is where, besides in Scotland? (262a)
39. To what region is the name Indonesia given? (258a)
40. Name the five most populous states of the United States, in order of population. (177c & 178a)
41. Locate the Teton Mountains. (138a)
42. The Sejm is the parliament of what country? (231a)
43. Give two more recent names for the ancient city of Byzantium. (237b)
44. Prome and Akyab are towns in what country? (255c)
45. If you had visited Cathay in bygone times, where would you have traveled? (241c)
46. Can you locate the Bug River? (160b)
47. The home of the Krupp works is in what city? (226c)
48. Identify Walloons. (220b)
49. In taking a holiday in the Vosges Mountains, where would you go? (139c)
50. It may be a long way to Tipperary, but where is it? (219c)

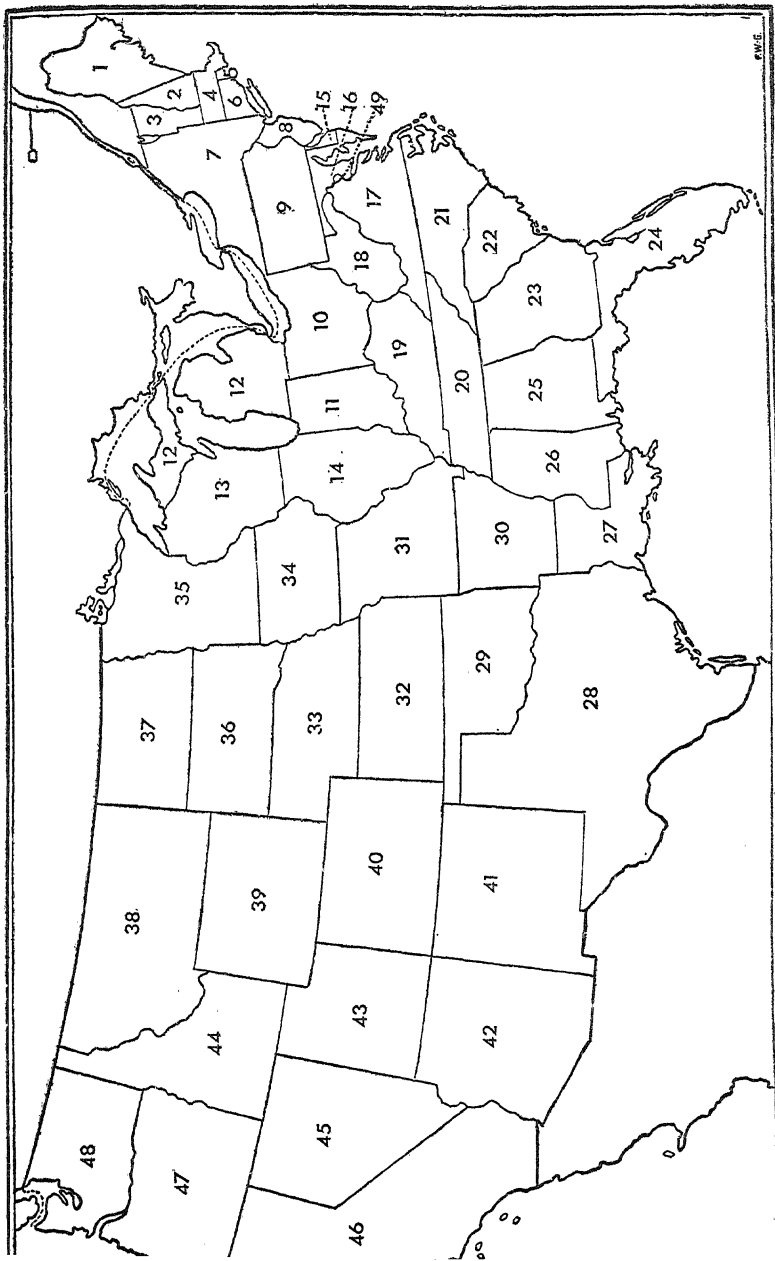
MAP QUIZZES

MAP QUIZ No. 1

THE UNITED STATES

AS AN INDIVIDUAL TEST Name the states and their capitals, listing them according to the numbers on the map. (*Answers are on pages 338-339.*)

AS A GROUP GAME Make out slips numbered from 1 to 49, shuffle them, and divide them among the people present until you have given all 49 slips. Then show this map of the United States to the group. Ask the players to write down each of their numbers, then to give the names of the states on the map corresponding to their numbers, and also the capitals of these states.



MAP QUIZ No. 2

SOUTH AMERICA

AS AN INDIVIDUAL TEST Name the countries and their capitals, listing them according to the numbers on the map. (*Answers are on page 340.*)

AS A GROUP GAME Make out slips numbered from 1 to 13, shuffle them, and divide them among the people present until you have given out all 13 slips. Then show this map of South America to the group. Ask the players to write down each of their numbers, then to give the names of the countries on the map corresponding to their numbers, and also the capitals of these countries.



PART II
AN OUTLINE OF GEOGRAPHY

(CONTAINING THE ANSWERS TO THE QUIZZES IN PART I)

PHYSICAL GEOGRAPHY

THE EARTH

The earth is one of the nine planets which revolve around the sun in elliptical, or egg-shaped, orbits. The earth is fourth in size, the three smaller—in order of size—being Mercury, Mars, and Venus, and the five larger Pluto, Neptune, Uranus, Saturn and Jupiter. The earth is approximately 92,900,000 miles from the sun—a relatively short distance in the vast spaces of the universe.

The earth is rounded, somewhat resembling an orange in shape. Slightly flat on each end, it is called an “oblate spheroid.” Its ends are the poles. An imaginary line drawn through the North and South Poles and extending through the center of the earth is called its axis.

Two motions characterize the earth. One of these is an east-to-west whirling motion in which the earth makes one complete revolution in approximately 24 hours. The position in relation to the sun causes night and day. The other motion is the movement which the earth makes along its orbit around the sun, completing the orbit in $364\frac{1}{4}$ days. The earth's position on its orbit determines the seasons.

Of the earth's total surface of about 197,000,000 square miles, approximately 139,500,000 are covered with water; and the balance, 57,500,000 square miles, is dry land.

From pole to pole directly through the center of the earth the distance is approximately 7,900 miles, while that around the earth, through the poles, is 24,860 miles.

An imaginary line drawn around the earth at its middle, with all points equidistant from the poles, is the equator. At the equator, the distance through the center of the earth is 7,926 miles and the distance around the earth is 24,902 miles.

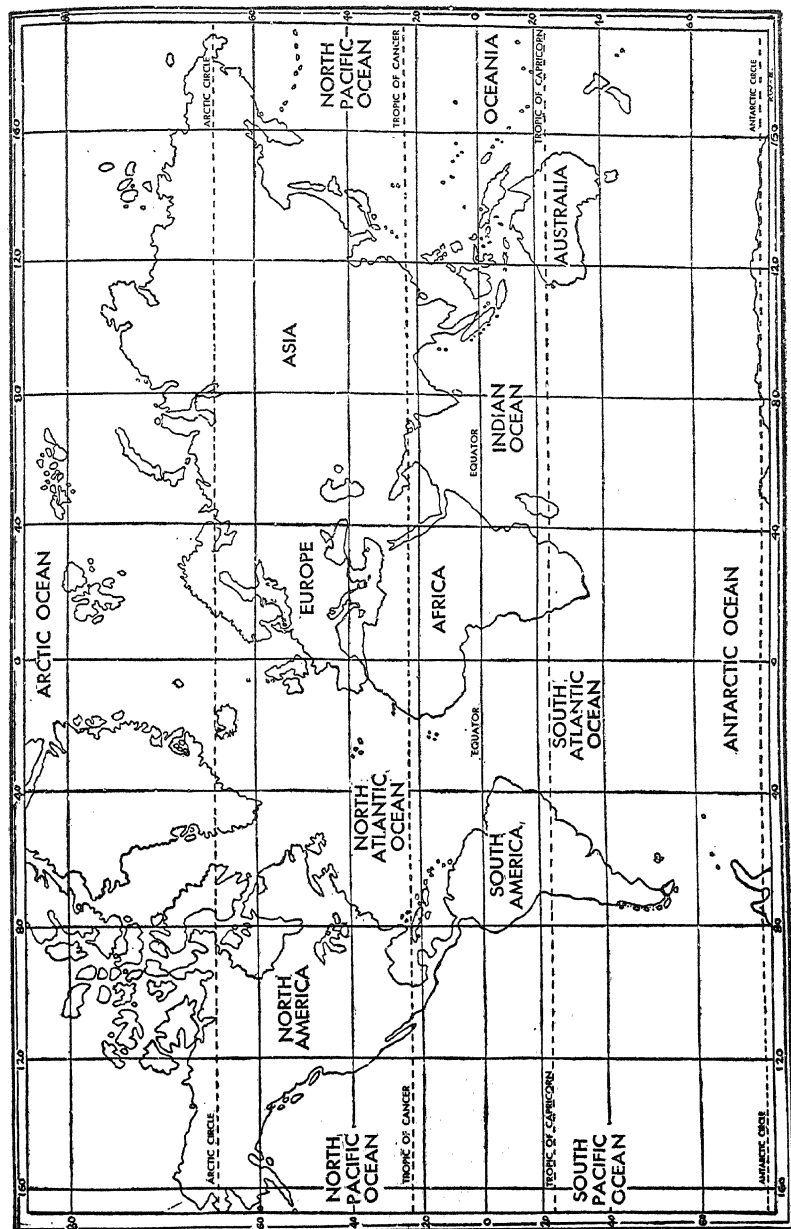
MEASURING TIME AND DISTANCE

So that points on the earth's surface may be located accurately and easily, geographers refer to imaginary lines running around the earth north and south and east and west. Those which run north and south, and through both poles, are lines of longitude, or meridians. The lines parallel to the equator are lines of latitude, and are called parallels.

Each meridian is exactly one degree—four minutes in time—from the next, at the equator. They converge toward the poles. Thus, running around the earth and through the poles are 360 meridians, one degree apart when they cross the equator. The meridian which runs through Greenwich, England, a part of London, is "0" meridian. One degree east of this is "1" meridian east and one degree west is "1" meridian west. In the same way all the meridians are numbered east and west of Greenwich until we come to the 180th meridian, which is a continuation of "0" meridian on the opposite side of the earth.

The equator is "0" latitude, from which lines of latitude are numbered north and south. The first line north of the equator is latitude "1" north and the first line south is "1" south. Latitude 90 north is the North Pole, 90 south the South Pole. Each line of latitude is one degree from the next.

Points on the earth's surface are located by giving their



1. THE WORLD

number of degrees, minutes, and seconds north or south of the equator and east or west of the Greenwich meridian.

The 180th meridian is known as the International Date Line for a good part of its course. Although the Date Line follows this meridian fairly closely, it fluctuates at two places to permit certain areas close together to have the same day at the same time. These places are between the 5th and the 51st parallels south, where the Date Line bends east, and between the 48th parallel and 70th parallel north, where the line zigzags to pass the Aleutian Islands and go through the Bering Strait.

A traveler going west from the United States to Asia, for example, would skip one day when crossing the International Date Line. If he crossed the line at 10 o'clock on Sunday, immediately after he crossed, it would be 10 o'clock Monday. Likewise, a person traveling from Asia to the United States would pick up a day when crossing the line, so that he would have the same day twice.

Although a day begins for you wherever you happen to be when the sun rises, East Cape, Siberia, has won a legendary reputation as the spot where "day starts," probably because of its position just east of the International Date Line and because it is the easternmost point of the huge continent of Asia.

"Mercator's Projection" means the presentation of any area on a plane surface. This method of projecting the earth's globular shape onto flat maps was devised by Gerhard Mercator, a Flemish geographer. On his maps, the whole top of a flat sheet represented north.

Time is measured with reference to the position of the sun. Thus, when the sun is directly above any given point on the earth's surface, it is noon at that point. However, since the sun does not pass directly over many points on the

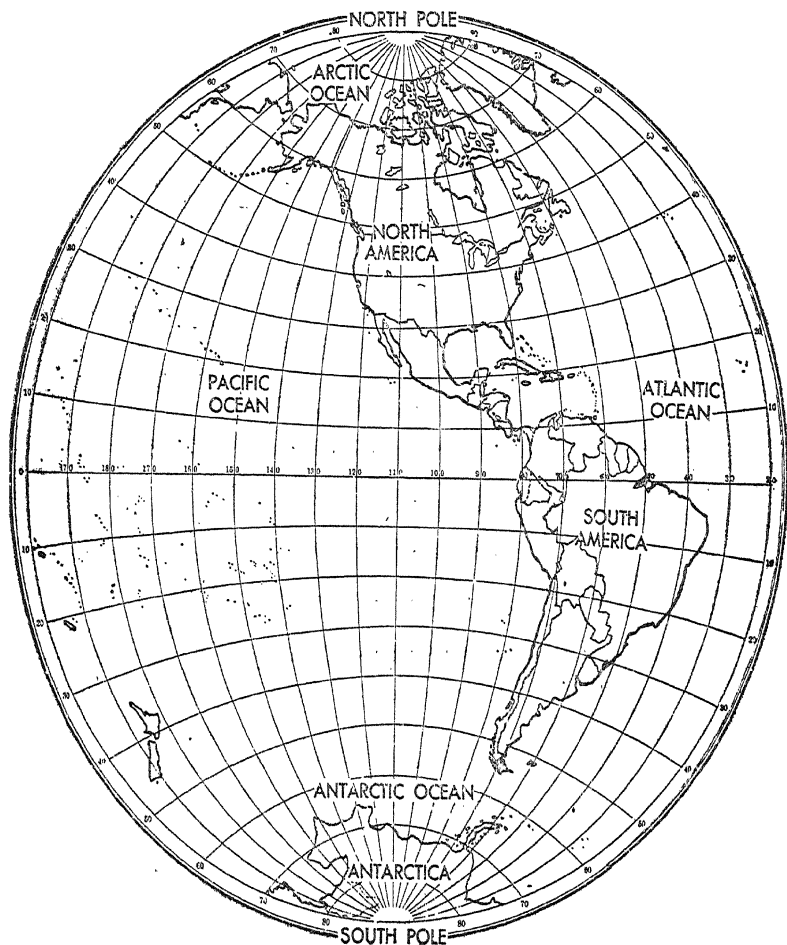
earth's surface, noon is the moment when the sun is directly over the meridian passing through that point.

If we attempted to compute time for each point on the earth's surface, it would be most confusing. To avoid that, time zones have been designated. These zones are roughly 15 degrees wide beginning with Greenwich meridian and moving west. All places within a single time zone have the same time. Thus, when it is midnight Sunday at the Greenwich observatory in London, it is midnight the same day in all places within 15 degrees west of Greenwich. But, when it is midnight Sunday at Greenwich it is 7 p.m. Sunday in New York. This is due to the fact that, since the earth rotates toward the east, the sun will rise at Greenwich before (or "earlier" than) it rises in New York. Changes to "War Time" or "Daylight Saving" may alter the actual number of hours' difference.

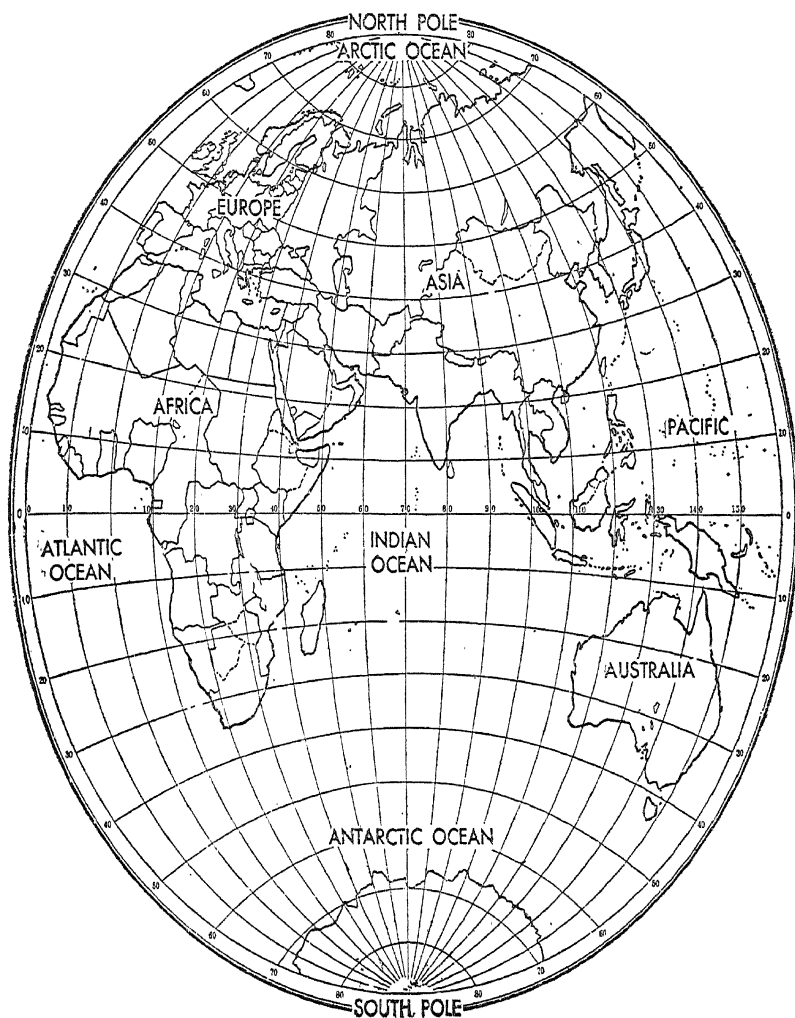
Because certain groups of places wish to maintain the same time, the time belts do not follow the divisions of 15 degrees of longitude arbitrarily, but become irregular.

There are four time zones in the United States. These are designated as Eastern, Central, Mountain, and Pacific, and are marked off roughly by the 75th, 90th, 105th and 120th meridians west of Greenwich respectively.

In addition to the Equator, geographers use four other important imaginary lines, all of which are parallel to the Equator. These are: The Arctic Circle, which is $23\frac{1}{2}$ degrees south of the North Pole; the Antarctic Circle, which is $23\frac{1}{2}$ degrees north of the South Pole; the Tropic of Cancer, which is $23\frac{1}{2}$ degrees north of the Equator; and the Tropic of Capricorn, which is $23\frac{1}{2}$ degrees south of the Equator. These lines serve to bound the zones of the earth. The whole area north of the Arctic Circle is known as the North Frigid Zone. The area between the Arctic Circle and the Tropic of Cancer is known as the North Temperate Zone. The area



2. THE WESTERN HEMISPHERE
Showing Continents, Oceans, and Poles



3. THE EASTERN HEMISPHERE
Showing Continents, Oceans, and Poles

between the Tropic of Cancer and the Tropic of Capricorn (with the Equator lying in the middle) is known as the Torrid Zone. The area between the Tropic of Capricorn and the Antarctic Circle is known as the South Temperate Zone. And all the area south of the Antarctic Circle is known as the South Frigid Zone.

THE HEMISPHERES

The earth is divided into the Eastern and Western Hemispheres by the 20th meridian west, in the Atlantic, and the 160th meridian east, in the Pacific. The equator divides the earth into the Northern and Southern Hemispheres. A "hemisphere" is a half-sphere.

THE CONTINENTS

There are seven bodies of land known as continents. The largest is Asia, located in the Northern and Eastern Hemispheres and covering an area of approximately 17,000,000 square miles. The second largest is Africa, wholly in the Eastern Hemisphere but partly in the Northern and partly in the Southern Hemispheres; its total area is approximately 11,600,000 square miles. Africa is commonly called the "Dark Continent," since little light of knowledge was thrown on it until explorations in the nineteenth century.

North America, situated in the Northern and Western Hemispheres and covering approximately 9,300,000 square miles, is the third continent in size. It includes the area known as Central America, and at its northwestern tip lies within 40 miles of the northeastern tip of Asia, at a point almost exactly on the Arctic Circle.

South America, with an area of 7,500,000 square miles, is joined to North America by the Isthmus of Panama. South

America is wholly in the Western Hemisphere, but lies in both the Northern and Southern Hemispheres.

The fifth continent in size is Antarctica, with a total area of approximately 5,000,000 square miles. This continent is located at the "bottom" of the world, around the South Pole, and stretches across both the Eastern and Western Hemispheres. All of it is inside the Antarctic Circle.

Europe, with a total area of 3,870,000 square miles, is in the Northern and Eastern Hemispheres. Since it has a land frontier with Asia, the two continents are sometimes referred to together as Eurasia. While the line between the two continents is not definitely fixed at certain places, it is usually considered to run from the Arctic Ocean, down the crest of the Ural Mountains and along the Ural River in Russia to the Caspian Sea, and then along the crest of the Caucasus Mountains and through the Black Sea to the Mediterranean.

Australia, the smallest of the continents, is located in the Southern and Eastern Hemispheres and covers approximately 2,950,000 square miles. It is often referred to as "Down Under," since, before the discovery of Antarctica, it was the only known continent wholly in the Southern Hemisphere and the one farthest south from Europe. It is also referred to as the "Island" or "Lonely Continent," because of its distance from other large bodies of land.

The great mass of the earth's land surface lies in the Northern Hemisphere and tapers off to the south. Several of the continents, especially North America, South America and Africa, are shaped roughly as triangles. Their broadest parts are to the north.

The continents cover considerably less than half of the earth's surface. All the land, including islands, accounts for only 28%. Water, including oceans, lakes, and ice fields that are parts of oceans, covers 72% of the earth's surface.

Antarctica has the greatest *average* elevation above sea level of any continent, about 6,000 feet. Asia is second, with an average elevation of 3,000 feet. The other continents have the following average elevations: North America, 2,000 feet; Africa, 1,900 feet; South America, 1,800 feet; Australia, 1,000 feet; and Europe, 980 feet.

Every continent extends some distance beyond its shore line under water, forming what is known as a continental shelf. The waters on these shelves are relatively shallow. At their ocean edges, the shelves drop off fairly suddenly. The incline into the depths is called a continental slope.

THE OCEANS

The waters which cover three-quarters of the earth's surface are classified as oceans, seas, and lesser bodies such as lakes, rivers, fjords and the like. The oceans are the larger bodies of water usually bounded by the shore lines of continents.

The Pacific Ocean, extending from the Arctic to the Antarctic and bounded by North America, South America, Australia, and the Malay Archipelago and eastern Asia, is the largest single body of water on the earth's surface. It covers an area of about 70,000,000 square miles. Its deepest part is known as the Mindanao Deep, off the Philippine Islands; the depth there is 32,000 to 35,410 feet.

Until recently, ocean depths were measured by dropping long cables until they touched bottom. The more modern method consists of sending sound waves downward and measuring the time it takes the echo to return to the surface. From this measure the distance to the bottom is computed.

Second of the oceans in area is the Atlantic. It covers 31,500,000 square miles; with its many arms and branches, it covers a grand total of 41,000,000 square miles. Europe

and Africa form the eastern boundaries of the Atlantic, and North and South America the western. It is the narrowest of the large oceans, extending from the Arctic to the Antarctic regions. Its deepest area is the Puerto Rico Trench, just off the island of Puerto Rico. Here it reaches a depth of about 27,965 feet.

The narrowest part of the Atlantic Ocean is between South America and Africa. From the eastern tip of Brazil to Dakar, in French West Africa, the distance across the ocean is approximately 1,800 miles. This narrow section of the Atlantic has been used in the establishment of airlines linking the two continents.

Of the Pacific and Atlantic, the Pacific is bluer and the Atlantic saltier. An abundance of a particular type of plant life makes the Atlantic more green than blue. There is less salt in the Pacific because of greater evaporation due to winds.

At the southern tip of South America the Atlantic and Pacific oceans meet "naturally." They meet "artificially" at the Panama Canal, but the Isthmus of Panama separated them before the canal was constructed.

The Indian Ocean, lying south of Asia and east of Africa, covers 17,000,000 square miles. Its deepest place is at latitude 10 degrees south and longitude 108 degrees east, in the vicinity of Christmas Island.

The Arctic Ocean extends completely around the earth north of the Arctic Circle. It covers an area of 4,000,000 to 5,000,000 square miles and touches the northern reaches of North America, Europe, and Asia. At the opposite pole is the Antarctic Ocean with an area of about 6,000,000 square miles. This body of water is sometimes considered to be the southern extremities of the Atlantic, Pacific, and Indian oceans rather than a separate ocean, and is also called the Great Southern Ocean. Since neither the Arctic nor the

Antarctic Oceans have been explored completely, their points of greatest depth are unknown. Large areas of both oceans consist of great masses of ice throughout most of the year.

The oceans of the world are often poetically called the Seven Seas. This designates the North Atlantic, South Atlantic, North Pacific, South Pacific, Indian, Arctic, and Antarctic oceans.

THE POLAR REGIONS

The polar regions are those areas at the northern and southern extremes of the earth. The latitude of the North Pole is 90 degrees north and that of the South Pole is 90 degrees south. The poles have all degrees of longitude, since all converge at them. The north and south magnetic poles are in the Arctic and the Antarctic regions respectively, but are not located at the North and South Poles. They are points which influence direction finders by strong magnetic attraction. They do not stay in one spot all the time, but shift slightly. The earth is not absolutely rounded at the poles, but is flattened out somewhat in both polar regions, enough to throw geographical calculations off somewhat.

The North Pole was discovered by Admiral Robert Edwin Peary, the American Arctic explorer. In 1886 he found that Greenland was an island. After many voyages around it and to the north, he set the pole as his objective. He reached it on April 6, 1909. Roald Amundsen, a Norwegian explorer, was the first to reach the South Pole. He arrived there on December 14, 1911, one month before Robert Scott, an Englishman, reached it. Scott died just after his journey. Sir Ernest Shackleton, another Briton, had come within 97 miles of the South Pole in 1907 before he was forced to turn back. Admiral Richard E. Byrd was the first man to fly

over both poles. In 1926, with Floyd Bennett, he flew from Spitsbergen to the North Pole and back. In 1929 he flew over the South Pole.

The North Pole is not as cold as some regions in Siberia. Some of the coldest temperatures recorded were taken in Yakutsk Province, Siberia, where 90 degrees below zero has been found. Polar temperatures of 55 below zero have been listed.

Ice and water mark the earth's surface at the North Pole. The water reaches a depth of 1,500 fathoms or more; no sure bottom has yet been reached.

ISLANDS AND ISLAND GROUPS

A body of land completely surrounded by water is called an island. Countless islands are scattered through the waters of the earth, ranging in size from the continent of Australia to mere specks of coral formations less than a mile square.

The Aleutian Islands are a long chain reaching from the southern shore of Alaska west and south, far into the North Pacific Ocean. From the Alaskan mainland, the first of the Aleutian chain is Kodiak Island. At the western extreme of the chain is Kiska Island, lying 1,915 miles from Yokohama, Japan. Another island of importance in the Aleutians is Unalaska, on which Dutch Harbor is located. The entire chain stretches a distance of 800 miles from the Alaskan coast.

Nearby, the Pribilof Islands, in the Bering Sea, are known as a source of fur seals. These islands belong to the United States and are selected as a breeding place by many Arctic sea animals. Two other islands in the Bering Sea are Big Diomedé and Little Diomedé, lying between the United States and Russia. Big Diomedé belongs to Russia, Little Diomedé to the United States.

South and east of Florida are many groups of islands of varied sizes and importance. Just 55 miles south of Cape Sable lies Key West, near the end of a series of small islands curving into the Gulf of Mexico from the Florida mainland. Key West is the county seat of Monroe County. These small islands are called "keys."

A group of extremely important islands are those within the immediate vicinity of New York City. Many European immigrants to America first set foot on Ellis Island, in New York Harbor; where the United States immigration offices for the New York area are located. Another noted speck of land in New York Harbor is Bedloe's Island, on which stands the Statue of Liberty. Governor's Island is an army base in New York Harbor; situated at the mouth of the East River at the point where the river flows into New York Bay, it is headquarters for the Second Corps Area of the United States Army. The heart of New York City is Manhattan Island, which is bounded by waters of the Hudson, Harlem and East rivers and New York Bay. Stretching east from Manhattan for a distance of 120 miles is Long Island.

Martha's Vineyard and Nantucket are two well-known islands near Cape Cod. They lie a few miles off the Massachusetts coast and south of the Cape. Both are famous summer resorts.

Mackinac Island is in the Great Lakes, where Lakes Michigan and Huron meet in a narrow strait at the northern tip of Michigan. The Thousand Islands are in the St. Lawrence River, near Lake Ontario. There are seven large islands and 1,600 smaller ones.

Mt. Desert Island is the best known of the many islands situated just off the coast of Maine. Further north lie Miquelon and St. Pierre, small French islands just south of Newfoundland. These are the last remnants of the former French Canadian empire. The large island to the south of

the mouth of the St. Lawrence River, Prince Edward Island, is a Canadian province, the smallest of the Dominion. It is approximately 150 miles long.

Greenland is the largest island in the world, excluding the Australian continent. Lying in the Atlantic Ocean, northeast of Canada, it has an area of 840,000 square miles, most of which is an interior ice cap.

Due north of Canada is a group of islands forming the District of Franklin, part of the Northwest Territories. The largest of these islands is Baffin Land, between Canada and Greenland, northeast of Hudson Bay. It lies mostly within the Arctic Circle. Other islands of this group are Somerset Island, Prince of Wales Island, Victoria Island, Banks Island, King William Island, Melville Island, Devon Island and Ellesmere Island. Other smaller islands are scattered among them. Southampton Island, in the northern part of Hudson Bay, is in the District of Keewatin.

South of the United States are the Greater and Lesser Antilles. The Greater Antilles include Cuba, Haiti, Jamaica and Puerto Rico, all in the northern Caribbean Sea. Cuba is touched by an ocean, a gulf and a sea. It is bounded by the Atlantic Ocean on the north, on the south by the Caribbean Sea, and on the west by the Gulf of Mexico. Haiti is second in size of the West Indies, only Cuba being larger.

The British West Indies, designated by the initials "B.W.I.," lie in the eastern part of the Caribbean Sea, for the most part, with a few scattered in the western area. The Bahamas are part of these islands, located between Florida and Haiti. There are numerous islands in the group and the climate is an attraction for visitors.

Bermuda is not a part of the West Indies. It lies farther north in the Atlantic, just about opposite North Carolina and 677 miles southeast of New York City. Bermuda is in reality a group of 360 small islands, and is therefore some-

times referred to as The Bermudas. The 20 islands which constitute the inhabited area are larger than the others and are connected by causeways, the total length being about 19 miles, and the widest points being a little over a mile. Bermuda is a British colony; its capital is Hamilton.

Antigua, St. Lucia, Grenada and Montserrat are islands in the Lesser Antilles, that group curving along the eastern side of the Caribbean Sea. Most of these are British.

The Dry Tortugas are small islands off the west tip of Florida. Another island, named Tortuga, lies off the north coast of Venezuela. There are two other islands having the same name—Trinidad Island, in the Caribbean Sea north of Venezuela and belonging to Great Britain, and a Trinidad Island in the South Atlantic off Brazil, belonging to Brazil.

Just off the coast of French Guiana, on the northeast coast of South America, is Devil's Island. France has sent its convicts there for many years. The island is a jungle from which escape is exceedingly difficult.

Three islands are located near the southern tip of South America. The Falkland Islands, two small areas, are 300 miles east of the tip of South America in the Atlantic Ocean. They have been held by Britain since 1833, but have also been claimed by Argentina. Desolation Island is situated at the Pacific entrance to the Strait of Magellan, near the tip of South America. At the very "bottom" of the South American continent lies Tierra del Fuego, separated from the mainland by the Strait of Magellan. It belongs to Chile and Argentina—the eastern part being Argentine, the western part Chilean. Near the Falkland Islands, several hundred miles east of South America, lies South Georgia Island. It has been used as a base for Antarctic exploration.

The Galapagos Islands are in the Pacific Ocean, 695 miles west of Ecuador. Such plant and animal life as is found there is of unusual character, and many scientific expedi-

tions have been made to the islands for research purposes.

Tasmania, 140 miles south of the southern tip of Australia, is part of the Commonwealth of Australia. It was discovered by the explorer, Tasman. In 1798 Surgeon George Bass, of the Royal Navy, proved that Tasmania was an island. He navigated the strait, now named Bass Strait, between the island and the mainland, disproving an earlier theory that the land was all part of one vast continent. The Antipodes are a group of islands south of Australia. The name is frequently applied to Australia as well, because "antipodes" means on the opposite side of the globe. Thus the Antipodes are opposite Europe.

Southeast of Australia, some 1,200 miles from that continent, lies New Zealand. This British dominion consists of two large islands, North Island and South Island, also Stewart and several smaller islands. Anthony van Diemen, governor of the Dutch East India Company, sent explorers out between 1636 and 1645 on voyages around Australia, New Zealand and the East Indies. These trips were fruitful in opening up the new territories.

The world's second largest island, excluding Australia, is New Guinea, north of Australia; politically, part of it belongs to the Netherlands, part is an Australian mandate. The island covers 330,000 square miles. Near by, to the east are the islands of New Britain and New Ireland, which belong to Great Britain. Just east of these are the Solomon Islands, also belonging to Britain. Then to the southeast are the New Hebrides and New Caledonia which are French; they lie across the Coral Sea from Australia.

Java, a long narrow island northwest of Australia, has belonged to the Dutch since 1600. The earliest colonies were established in this East Indies island in 1598. The Lesser Sunda Islands are to the east of Java, in the Dutch East Indies. Java and Sumatra are in the Greater Sundas. Bali,

one of the most beautiful of the Dutch East Indies, is situated just east of Java, separated from it by a narrow strait. Sumatra, lying west of Java, is 1,000 miles long, stretching along the western side of the Malay Peninsula. It is second in size of the Asiatic islands.

Borneo is the third largest island in the world, excluding Australia. It is situated in the Malay Archipelago and has an area of 306,906 square miles. Tribes of fierce natives roaming parts of the island gave rise to the popular idea that the wildest men come from Borneo.

The Hawaiian Islands are often called the "Crossroads of the Pacific." These American possessions are 2,100 miles southwest of the California coast. Eight of the islands are inhabited: Hawaii, Maui, Kahoolawe, Lanai, Molokai, Oahu, Kauai and Niihau. The whole Hawaiian chain is 390 miles long. Pearl Harbor, the great American naval base, is to the west of Honolulu. Diamond Head is the promontory near Honolulu first seen by travelers approaching the island.

South of the Hawaiian Islands is Tahiti, almost in mid-Pacific. This is the largest of the Society Islands, covering an area of approximately 400 square miles. It is under French rule, as are all the Society Islands. Howland and Baker islands are tiny dots in the Pacific, 1,600 miles southwest of Hawaii. Tutuila, one of the Samoan Islands, 2,000 miles south of Hawaii and on an almost direct line between San Francisco and Australia, belongs to the United States. There are 44 islands in the Samoan group, some of them belonging to Great Britain.

The Marshall and Gilbert islands are in the Pacific Ocean about half way between the Hawaiian Islands and Australia. The Marshalls, under Japanese mandate, comprise about 25 small islands. The Gilberts, a British possession, are mostly small atolls, or coral reefs.

Easter Island is located in the South Pacific Ocean, 2,000

miles west of Chile, to which it was annexed in 1888. A number of valuable archeological remains have been found there. Pitcairn, another small island in the South Pacific, was colonized by mutineers from the British ship *Bounty* in 1790. Descendants of the mutineers still live on the island.

The Philippine Islands lie southeast of China in the Pacific Ocean. Luzon is the main island. Here are Manila Bay and the forts of Hughes, Drum, Frank, and Corregidor, all of which protect the entrance to the bay. The entire Philippine chain consists of 7,083 islands, large and small, covering 114,400 square miles of territory. Mindanao and Panay are part of this group. Other principal islands are Palawan, Mindoro and Leyte. Cebu is one of the islands of this group, lying south of Luzon and in the center of hundreds of smaller islands.

Hongkong and Singapore are two British island fortifications in the Far East. Hongkong lies on the South China coast, and is 9 miles long and 4 miles wide. Singapore, at the southern tip of the Malay Peninsula, is 27 miles long and 14 miles wide. It was purchased by the British in 1824.

Hainan, belonging to China, a rich island source of minerals, 13,000 square miles of land, is 15 miles south of China's southernmost tip. Taiwan, or Formosa, as it is usually called, is just off the China coast and north of the Philippine Islands. It was ceded to Japan by China in 1895.

Honshu is the most important of the islands which constitute Japan. Hokkaido lies to the north of Honshu, and Kyushu to the south. The other main islands of the Japanese group are Shikoku and Ryukyu.

The Kurile Islands are a long chain extending from the tip of the Kamchatka Peninsula on the Asiatic mainland to northern Japan. These islands are inhabited almost wholly by fishermen. To the west, near the Russian coast, is Sakhalin, a long, mountainous island forming the northern end

of the Japanese archipelago. It is the habitat of bears, tigers and reindeer. The southern half of the island belongs to Japan, the northern half to Russia. It is rich in oil.

The Indian Ocean is dotted with small and large islands. Christmas Island lies 200 miles southeast of Java and is under British rule. There is another Christmas Island in the Pacific, a member of the Gilbert and Ellice islands group; it also is a British possession. Ceylon, just off the tip of India, is an important British crown colony, famous for its tea, elephants, spices and valuable jewels.

About 700 miles southwest of Sumatra lie the Cocos Islands, in the Indian Ocean. They consist of 20 small coral islands under British rule. The Andaman Islands, in the Indian Ocean between Burma and India, where the ocean forms the Bay of Bengal, were used as a penal colony for India for many years.

Madagascar, the fourth largest island in the world, excluding Australia, is located off the east coast of Africa, in the Indian Ocean. It is 975 miles long and covers a total area of 228,000 square miles. It belongs to France. East of Madagascar is Mauritius, a British island colony. Zanzibar, north of Madagascar, close to the African coast off Tanganyika Territory, is a British protectorate; it is 53 miles long.

Bahrein Island is situated in the Persian Gulf near the coast of Africa. It is a British possession.

Off the west coast of Africa, where the shoreline swings sharply south to form the continental "elbow," lies the island of Fernando Po, in the Gulf of Guinea. About 150 miles from the African coast, off Rio de Oro, in the Atlantic Ocean, are the Canary Islands, belonging to Spain.

The Balearic Islands lie off the east coast of Spain, in the Mediterranean. They constitute a province of Spain. Majorca, Minorca and some smaller islands form the group.

Samothrace, between Greece and Asia Minor, in the Aegean Sea, is but a small dot of land, but it has played an important role in the history of Greece.

In the Atlantic west of southern Africa, stands the lonely little island of St. Helena. This was the scene of Napoleon's second exile and death. Two other islands closely associated with Napoleon are Corsica and Elba, in the Mediterranean Sea. Corsica was the birthplace of Napoleon. Elba is a small island between Corsica and Italy. There Napoleon spent his first exile. The two large islands in the Mediterranean west of Italy are Corsica and Sardinia. At the southern tip of Italy is the important island of Sicily.

Cyprus is 60 miles from the eastern end of the Mediterranean Sea. Crete lies just south of Greece, and the Dodecanese Islands between Greece and the southwest coast of Asia Minor. They belong to Italy. The principal group consists of 12 islands in the Aegean Sea, of which the largest is Rhodes.

Two islands off the northern coast of France, Jersey and Guernsey, are famous for their cows. They are part of the Channel Islands, belonging to England though actually close to France. The Isle of Wight, in the English Channel, is situated just off the coast of Hampshire in southern England. It is 23 miles long and 13 miles wide and forms one of the English counties.

North of Scotland is a group of islands known as the Orkneys; still further north are the Shetland Islands. They belong to Britain. To the northwest of Scotland is a chain called the Hebrides. They include about 500 small islands, not more than 100 of which are inhabited. Lewis Island, largest of the group, is farthest north.

The Faroe Islands lie about midway between Iceland and the British Isles.

Helgoland, about 40 miles off the mouth of the Elbe River

in the North Sea, is one mile long and a third of a mile wide. Near Helgoland one of the important naval battles of the First World War was fought.

Near the coast of Norway and belonging to that country are the Lofoten Islands, inhabited principally by fishermen.

Spitsbergen, in the Arctic Ocean, has been the base for several polar expeditions. There are many islands in the Spitsbergen group some 360 miles north of Norway. They are separated from Greenland by the Greenland Sea. Another island group in the Arctic Ocean forms Fridtjof Nansen Land, comprising small bits of land clustered east and slightly north of the Spitsbergen Islands.

Novaya Zemlya is situated off the northern coast of Russia, in the Arctic region, separating the Barents Sea from the Kara Sea. It contains 30,000 square miles of frozen Siberian wasteland. Two other island groups north of Russia are North Land and the New Siberian Islands, both in the Arctic Ocean.

The Azores consist of nine major and several smaller islands spaced over about 400 square miles of water. They lie in the Atlantic Ocean closer to Europe than to the United States, and serve as an airline station on the trans-oceanic route from Lisbon to the United States. They form a province of Portugal.

PENINSULAS AND CAPES

Peninsulas and capes are land areas projecting out into bodies of water, peninsulas being surrounded by water on three sides.

Two of the states of the United States are peninsulas: Florida and Michigan. The Florida peninsula extends south from the mainland of the United States and is bounded on the east by the Atlantic Ocean, on the south by Florida Bay, and on the west by the Gulf of Mexico. Michigan is really

two peninsulas. The lower peninsula extends north and is bounded by Lake Michigan on the west and Lake Huron on the east. The upper peninsula points east and is bounded on the north by Lake Superior and on the south by Lake Michigan.

The southernmost point of the United States is Cape Sable, at the tip of Florida.

Cape Hatteras, in North Carolina, is formed by a projection in the eastern coastline of the United States. The cape is so situated that it receives the full fury of storm winds and is noted for its gales. Cape Cod is a curved neck of land jutting into the Atlantic Ocean from Massachusetts. From the ocean tip one can see the sun set in the Atlantic Ocean. Famous summer resorts are situated on the Cape.

Lower California is an extensive peninsula extending south from California along the coastline of Mexico. It is bounded by the Gulf of California on the east and the Pacific Ocean on the west.

The Yucatán Peninsula juts north into the Gulf of Mexico at the western end of Central America. It is part of Mexico.

The Gaspé Peninsula, one of the beauty spots of Canada, is situated at the mouth of the St. Lawrence River in the Province of Quebec. Further east the island of Newfoundland juts south into the Atlantic Ocean, forming Cape Race. This is the most eastern point of the island.

The southern tip of Greenland forms Cape Farewell. This is a scantily inhabited part of the Greenland coast and is covered with ice part of the year.

Two capes across from each other at Bering Strait—Cape Prince of Wales and East Cape—mark the western and the eastern tips of Alaska and Russian Siberia respectively. They reach within 40 miles of each other. In the dead of winter it is sometimes possible to walk from North America

to Asia across the ice covering the strait between these points.

The Taimir Peninsula is a large section of northern Siberia jutting northward into the Arctic Ocean. To the east is the Nordenskiöld Sea, to the west the Kara Sea. Siberia has another famous peninsula, Kamchatka, which extends south into the Pacific Ocean from far-eastern Siberia. The Sea of Okhotsk is on its western shore and the Bering Sea on its east. In European Russia, the Kola Peninsula extends from northern Russia into the Arctic Ocean, at the mouth of the White Sea.

Norway and Sweden form the Scandinavian Peninsula, which is washed on the west by the Atlantic Ocean and on the east by the Gulf of Bothnia and the Baltic Sea. Just south of Scandinavia lies Denmark, occupying a peninsula bounded by the North Sea, the Baltic Sea and the Kattegat, jutting north from Germany. At the northern tip of Norway is North Cape, the most northern point of Europe, reaching into the Barents Sea. Many tourists have visited this point to see the Midnight Sun.

Many peninsulas jut into the Pacific Ocean. Korea occupies a peninsula across the Sea of Japan from the Japanese islands. The Yellow Sea is on its western side; Manchukuo (Manchuria) lies to the north. Its eastern shores are washed by the Sea of Japan. The Malay Peninsula of southeastern Asia forms part of the boundary between the Pacific and Indian oceans. The peninsula extends about 400 miles from Burma and Thailand (Siam) on the north to Singapore in the south.

Bataan Peninsula, a mountainous section of Luzon Island in the Philippines, is bounded by the South China Sea and Manila Bay, with the entrance to Manila Bay at its southern tip.

Cape York Peninsula is a part of Australia extending north from the mainland and bounded by the Gulf of Car-

pentaria on the west and the Coral Sea on the east. Just off this cape, to the east, lies Great Barrier Reef. In the south of Australia is the Eyre Peninsula, separating Spencer Gulf from the Great Australian Bight.

Cape Horn is the southernmost point of South America, on Horn Island just south of the island of Tierra del Fuego. An equally famous point on the southern coast of Africa is the Cape of Good Hope, in the Union of South Africa. This lies a little north and west of Cape Agulhas, which is actually the southernmost point of the African continent. The most westerly point of Africa is Cape Verde, in French West Africa, which projects into the Atlantic Ocean.

Spain and Portugal occupy the Iberian Peninsula, which also has a British colony at Gibraltar. On the Atlantic coast of Spain lies Cape Finisterre, near the northern corner of the country. The ancients thought this was the end of all land, thus the name meaning "end of land."

The Italian and Balkan peninsulas extend south into the Mediterranean. Italy is often called a "boot" because of the shape of the peninsula. The Balkan Peninsula includes Yugoslavia, Rumania, Bulgaria, Albania and Greece.

The Kerch Peninsula, a small point of the Crimean Peninsula, is situated on the Black Sea in southern Russia. The Kerch area extends eastward from the Crimea, facing the Caucasus. It is bounded by the Black Sea and the Sea of Azov. The Crimean Peninsula extends south from Russia into the Black Sea.

SEAS

A sea is a large body of water, usually though not always salty, which is smaller than an ocean. Although a large number of the seas are connected with oceans, a few are completely land-locked. Seas are given separate names from

the ocean bodies with which they are connected because land or island boundaries mark them off as distinct water areas.

The Caribbean Sea lies between the West Indies islands and South America. Central and South American shores form its southern borders and Cuba bounds it on the north with the other West Indies islands. The sea is approximately 1,750 miles long and is named for the Caribs, a race of American Indians found in South America and the West Indies.

The Spanish Main refers to the northern coast of South America, and to islands in the Caribbean in that area, attached to former Spanish colonies. The region became famous as a haunt for buccaneers.

Strange and highly interesting is the Sargasso Sea. This is a section of the North Atlantic Ocean which is densely covered by patches of weeds. Its location varies somewhat with winds and ocean currents, but it generally drifts in an area between Bermuda and the Azores. Columbus discovered it. Gulf-weed (*sargassum*) gives the sea its name.

The Irish Sea separates England and Ireland. It is connected with the Atlantic Ocean by North Channel on the north and Saint George's Channel to the south. This sea is about 150 miles long, its width varying from about 60 miles to 120 miles.

The North Sea, between Great Britain and the continent of Europe, is an arm of the Atlantic Ocean, 680 miles long and 412 miles wide, and washes against the shores of eight countries. The Zuider Zee penetrated into Holland from the North Sea, but the Dutch have built a dam across the opening, and have worked out drainage projects which make the area a large fresh-water lake bordered by new land for farming.

Also connected with the North Sea is the Baltic Sea, which cuts between Scandinavia and the rest of Europe. It curves

in a northeast direction for 930 miles, narrowing at some points to 50 miles.

The Mediterranean Sea separates Europe from Africa. Its name (Latin for "Middle" and "Land") places it at the center of the ancient world. It is approximately 2,300 miles long and is connected with the Atlantic Ocean by the Strait of Gibraltar. Since the strait is very narrow, there is little tide in the Mediterranean. The Ionian, Tyrrhenian, Adriatic and Aegean seas are parts of the Mediterranean. The Ionian lies between southern Italy and Greece; the Tyrrhenian between Italy and the island of Sardinia; the Adriatic between Italy and Yugoslavia; and the Aegean between Greece and Turkey.

The Red Sea, connecting the Mediterranean with the Indian Ocean, extends 1,200 miles in a southeast direction and is from 100 to 200 miles wide. Arabia is on its eastern shore, while Egypt, the Anglo-Egyptian Sudan and the Eritrean portion of Ethiopia are along its western shore.

The Dardanelles, a long and narrow strait, connects the Mediterranean and the Sea of Marmora. This sea divides Asiatic Turkey from European Turkey, and covers an area approximately 170 miles long and 45 miles wide. On its east it narrows to form the Bosphorus, a neck of water which connects it with the Black Sea.

The Black Sea has Turkey on its south shore and Russia on the north. Because of the narrowness of the Bosphorus and the Dardanelles, and because of the intervening Sea of Marmora, the Black Sea is so far from the Atlantic Ocean as to have no tides. It is 750 miles long and 385 miles wide at its greatest breadth. The Sea of Azov is an arm of the Black Sea penetrating north into Russia. The Kerch Peninsula almost separates it from the Black Sea, making it a great natural harbor. Its greatest length is more than 200 miles.

The Arabian Sea, part of the Indian Ocean, forms a large

gulf between India and Arabia. The western shores of the Arabian Sea divide Africa and Asia.

The lowest point on the earth's surface is the Dead Sea, located in Palestine. The surface of the water is 1,290 feet below sea level. The Dead Sea is 47 miles long, running north to south, and 5 to 10 miles wide. It has no outlet. It is rich in chemicals.

The Caspian is the largest inland sea in the world. Situated between Europe and Asia, and between Russia on the north and Iran (Persia) to the south, it is more than 700 miles long. It, too, has no outlet and is fed by rivers, but is salty nevertheless.

The shores of the continents bordering on the Arctic Ocean form many jagged inlets, some of them large enough to be called seas. The Barents Sea, in the Arctic Ocean north of the Scandinavian countries and Russia, is ice-covered a good part of the year, usually from November to May or June. It was named for Willem Barents, a Dutch navigator who died in 1579 trying to reach Asia by way of the Arctic Ocean. The White Sea, extending south from the Barents Sea and the Arctic Ocean, provides an entrance to northern Russia. Relatively shallow, it is covered with ice half of the year.

The Nordenskiöld Sea lies along the Arctic shore of Siberia in Central Asia. It is named for the explorer who navigated the Arctic passage from Europe to the Pacific. The Kara Sea, also north of Russia, is west of the Nordenskiöld.

Linking the Arctic and Pacific oceans and separating Asia from North America is the Bering Sea. Actually a part of the Pacific Ocean, it stretches for 1,500 miles from east to west and 1,000 miles from north to south. The northern portion of the sea is closed to shipping by ice early in November.

Several seas line the coast of Asia, in areas formed by the

Japanese and other islands reaching from the eastern tip of Russia to Australia. The Sea of Okhotsk, along the north-eastern coast of Siberia, facing south into the Pacific Ocean, is due north of Japan. The Sea of Japan separates Japan from the mainland of Asia. It extends from the northeast tip of the Japanese islands down along the coasts of Siberia and Korea.

The Inland Sea is entirely enclosed by the islands of Japan. Advertised by the Japanese as a great tourist attraction, it is noted for its hundreds of small islands and lovely waterways. It is connected to the Pacific Ocean by the Bungo Strait to the southwest and by the Kii Channel to the northeast. Parts of this sea are accessible to ocean-going ships.

The Yellow Sea is between northern China and Korea. It is an inlet of the Pacific Ocean, jutting northward 620 miles with a width of about 400 miles. It is a muddy, yellow color, due to sediment flowing into it from rivers. This sediment fills the sea and makes it quite shallow.

China gives its name to the East China Sea and South China Sea. The two seas stretch along the China coast from southern Japan to Malaya. The East China Sea extends south to Formosa, while the South China Sea reaches from the Philippines on the east to Borneo on the south and Malaya to the west.

The Sulu Sea is between the Philippines and Borneo, to the southwest. It is named for the islands which form a chain between the Philippines and Borneo. South of this sea and north of Australia, in the great island group of the southwest Pacific, are the Flores, Celebes, and Timor seas. The Flores and the Timor are just northwest of Australia, while the Celebes is between the Island of Celebes and the Philippines. The Java Sea separates the long island of Java from Borneo. Other seas dotting the southwest Pacific island group

are the Banda and Arafura seas, north of Australia and west of New Guinea, and the Coral Sea, lying northeast of Australia. All are parts of the Pacific Ocean.

The Tasman Sea, between Australia and New Zealand, is named for Abel Janssen Tasman, who discovered Tasmania in 1642.

At the gateway to the Antarctic ice barrier is the Ross Sea. Southeast of Australia, just below the Antarctic Circle, it forms a great, ice-covered bay on which many exploration bases have been established.

STRAITS, CHANNELS, FIRTHS, FIORDS, AND SOUNDS

Straits, channels, firths, fiords (fjords), and sounds are irregular-shaped bodies of water, usually arms of the sea or ocean, penetrating into a coastline, sometimes for a great distance. Long Island Sound, for example, is an arm of the Atlantic Ocean extending for 110 miles between New York State and Connecticut. Its southern shoreline is Long Island. The Sound has a maximum width of 25 miles. Hell Gate is the passage from the Atlantic into the western end of Long Island Sound. Ship navigators must be extremely cautious, as it is a perilous strait.

Mackinac Strait is an exception in that it connects two fresh-water lakes, Michigan and Huron. It separates the lower from the upper Michigan peninsula.

The Strait of Juan de Fuca cuts between Canada and the United States in northern Washington State. Vancouver Island lies on the north side; the northwest tip of the state of Washington is to the south. The Strait of Georgia is the northern part of this body of water, separating Vancouver Island from the mainland. Both straits lead into the large, island-dotted Puget Sound. This forms an excellent harbor

for several Pacific Coast cities of the United States, Tacoma and Seattle among them. North of Vancouver Island lie Queen Charlotte Sound and Hecate Strait, separating the Queen Charlotte Islands from the Canadian mainland.

The islands north of Canada are separated by many straits and sounds. Davis Strait divides Greenland from Baffin Island, and connects Baffin Bay with the Atlantic Ocean. It is opposite the mouth of Hudson Bay. Denmark Strait connects the Arctic and the Atlantic oceans between Greenland and Iceland. At the extreme northeastern side of Greenland is a large indentation known as Independence Fjord. This is a bit of the Arctic Sea.

Two straits separate Newfoundland from the Canadian mainland. They are Cabot Strait, to the south, connecting the Gulf of St. Lawrence and the Atlantic Ocean, and the Strait of Belle Isle to the north.

Florida Strait is the water lying between the southern coast of Florida and the Bahama Islands. To the south is the Strait of Yucatán, linking the Gulf of Mexico with the Caribbean Sea and dividing Yucatán from Cuba.

Cuba is separated from Haiti by the Windward Passage. Further east lies the Mona Passage, between the Dominican Republic and Puerto Rico. It is one of the main routes from eastern American ports to the Panama Canal. Many other straits, channels and sounds divide the islands of the West Indies.

The Strait of Magellan is the channel from the Atlantic to the Pacific Ocean at the southern tip of the mainland of South America. This stormy passage was discovered by Magellan in 1520.

Many indentations are formed in the shoreline of the British Isles by the surrounding oceans and seas. The English Channel, between the southern coast of England and the northern coast of France, extends to the Strait of Dover,

where it turns northward. At Dover Strait, England and France are not more than 20 miles apart. The strait is the entrance to the North Sea from the English Channel.

The Wash is the name given to an indentation of the North Sea on the east coast of England. Several rivers flow into its 22-mile length. With a width of 15 miles, The Wash forms a fine anchorage. Further north, on the coast of Scotland, is the Firth of Forth. From the North Sea to its farthest inland point is 51 miles. This firth, the most famous in Scotland, forms a great natural harbor, with the River Forth flowing into it.

On the western coast of England are several indentations of the Atlantic Ocean and the Irish Sea. Bristol Channel, dividing the southern peninsula of England from Wales, extends inland from the Atlantic Ocean to the mouth of the Severn River. St. George's Channel separates Ireland from Wales. It is the southern entrance to the Irish Sea from the Atlantic Ocean. The northern entrance, North Channel, separates Scotland from Northern Ireland. To the east, cutting deep into the coast of Scotland, is the Firth of Clyde, and north of this is a long, narrow strip of water—the Firth of Lorne, which connects the Atlantic Ocean and the Caledonian Canal. The eastern end of the canal is Moray Firth.

Still further north, between Scotland and the Hebrides, is The Minch, itself divided into the Little Minch to the south, and North Minch to the north.

A bight is a bend or curve in a coastline, forming a kind of bay in its crook. Helgoland Bight, for instance, is formed by the northward turn of the German coast toward Denmark, with the island of Helgoland as the seaward limit of the bight.

The Kattegat and the Skagerrak separate Denmark from Sweden and Norway. The Kattegat lies east of Denmark and washes the coasts of Denmark and Sweden, while the Skagerrak is north of Denmark and touches Denmark and both the

Swedish and Norwegian coasts. These two passages together connect the North Sea with the Baltic.

Denmark Strait, between Greenland and Iceland, in the North Atlantic, actually is a sweep of ocean several hundred miles wide. The name of the strait arises from the historic connection between Denmark and both Iceland and Greenland.

The Strait of Gibraltar is the narrow strip of water which connects the Mediterranean Sea and the Atlantic Ocean and separates Europe from Africa at the entrance to the Mediterranean. At its narrowest point the strait is $7\frac{1}{2}$ miles wide. The British fortress of Gibraltar, known as the "Rock," is situated on the European side of the strait. Directly opposite this on the African shore is Ceuta in Spanish Morocco. The "Pillars of Hercules" are the two rocky masses at these opposite points, which the ancients believed that Hercules erected at the further limit of his wanderings to the west.

Many straits and other water passages are found along the coastlines washed by the Mediterranean. The Strait of Bonifacio separates the Island of Corsica from the Island of Sardinia. Between Italy and the Island of Sicily lies the Strait of Messina, flowing between the Tyrrhenian Sea and the Mediterranean. It takes its name from the city of Messina in Sicily. Its width ranges from $2\frac{1}{2}$ to 12 miles. Italy is separated from Albania by the Strait of Otranto, a wide body of water between the Adriatic and Ionian seas.

The coastline around Greece is rugged and cut deep at many places by the sea. The Cerigo Channel separates the southern tip of Greece from the Island of Crete. The Atalante and Orei channels divide Euboea Island from the Greek mainland. The former is a long arm of the Aegean Sea running north and south; the latter is a much shorter arm running east and west.

The Dardanelles cuts from the Aegean Sea to the Sea of

Marmora, a distance of 42 miles. The width of the strait is from 1 to 5 miles. It is also known as the Hellespont, and Lord Byron swam across it. The eastern end of the Sea of Marmora tapers off into the Bosphorus, a narrow strait connecting with the Black Sea. The Bosphorus is 16 miles long and from a half mile to 2 miles wide.

The Kerch Strait separates two important areas of southern Russia—the Crimea and the Caucasus. It is less than 2 miles wide at one point, and its waters link the Sea of Azov and the Black Sea.

At the southern end of the Red Sea, connecting it with the Gulf of Aden, is the Strait of Bab el Mandeb, which touches the shores of Africa on the west and Arabia on the east. The Strait of Ormuz between Arabia and Iran (Persia) connects the Persian Gulf and the Gulf of Oman.

To travel from Malaya to the island of Sumatra one would cross the Malacca Strait, a narrow stretch of water between the Bay of Bengal and the China Sea. The distance across this strait varies from 35 to 185 miles. The Banka Strait lies between Sumatra and Banka islands in the Dutch East Indies. Sumatra is separated from Java by the Sunda Strait, which forms the chief gateway from the Pacific into the Indian Ocean. Its name comes from the Sunda Islands, the general name for the East Indies archipelago.

Macassar Strait is a wide expanse of water between the Java Sea and Celebes Sea, separating Borneo from Celebes Island. The oil produced in the Macassar region of the East Indies was at one time used on men's hair. To protect the backs of chairs against this oil, pieces of artistically designed cloth were used and came to be called "antimacassars."

The continent of Australia is cut off from New Guinea to the north by the Torres Strait, a body of water between the Arafura and Coral seas. To the south of Australia, separating the continent from the island of Tasmania, is Bass Strait.

The distance across it is 140 miles. Cook Strait separates North Island from South Island, the two main islands of New Zealand.

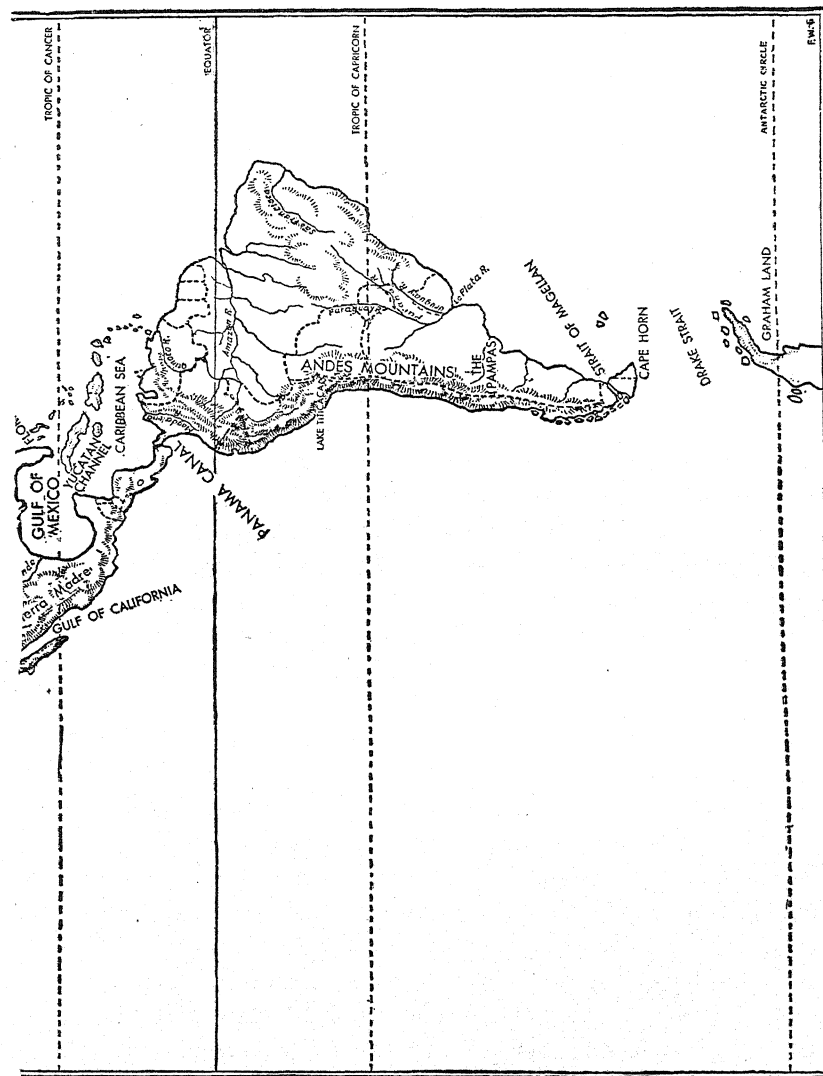
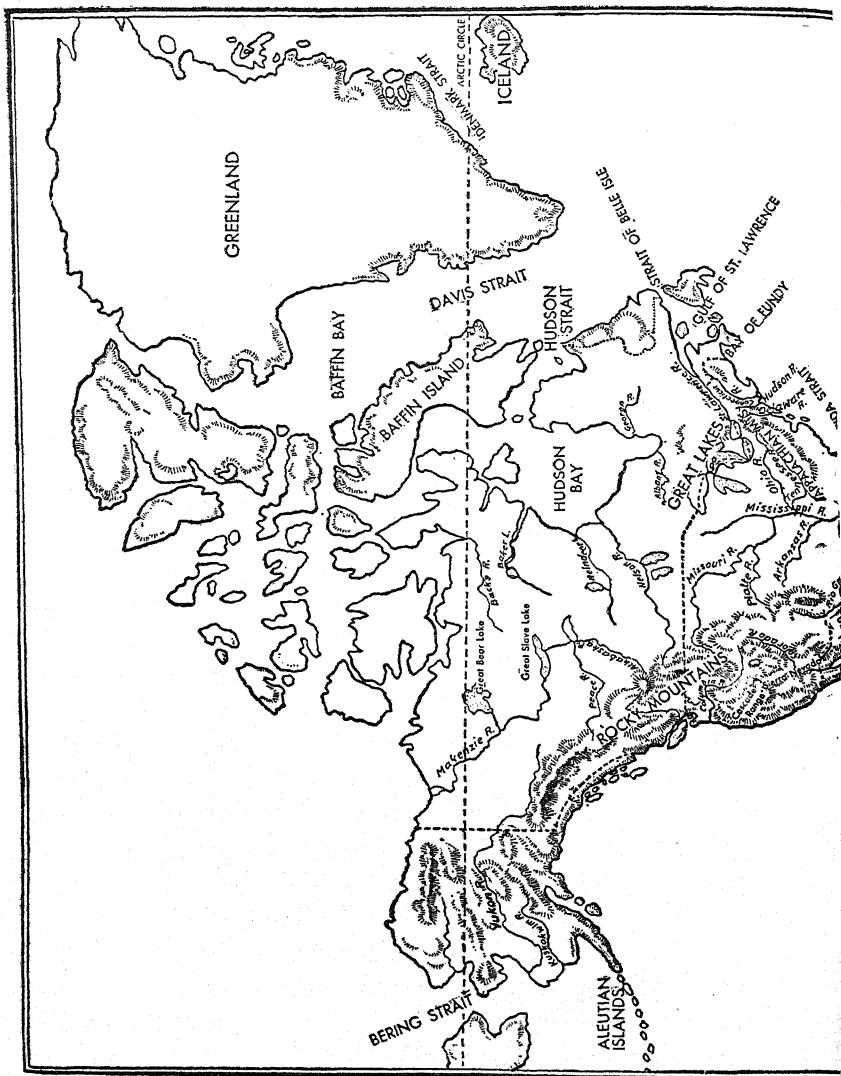
The Mozambique Channel which lies between Madagascar and the coast of Africa is in reality part of the Indian Ocean encircling the island of Madagascar.

MOUNTAINS

The earth is estimated to be about 3,000,000,000 years old. During a long part of this time the once-molten ball has cooled and taken shape. Because the cooling was not uniform, great upheavals took place from time to time, shoving the earth high in some places and leaving deep depressions at others. Further, the slow, grinding movement of great ice sheets or glaciers, the constant flowing of water and the steady work of winds all have contributed to producing the jagged mountain ranges, valleys and deserts of the earth's surface.

Extending from Alaska, through the western part of Canada and down the western United States, and along the western shore of Mexico to Central America is a great mountain range. In Alaska, Canada, and the United States it is known as the Rocky Mountains. In Mexico it is the western Sierra Madre. In the United States, part of the range, usually referred to as the Rockies, serves as the Continental Divide or watershed. This is the Great Divide between east and west, the easterly flowing waters from it eventually reaching the Atlantic Ocean (some through the Gulf of Mexico) and the westerly flowing waters reaching the Pacific Ocean.

Mount McKinley, in Alaska, is 20,300 feet high and is the highest point on the North American continent. It was named for President William McKinley. The highest moun-



4. THE WESTERN HEMISPHERE
Showing Mountains, Rivers, and Other Physical Features

tain in the continental United States, Mount Whitney, with an elevation of 14,495 feet, is in the part of this range which lies in California. Another section of the Rocky Mountains is the Cascade Range along the Pacific Coast in Oregon, Washington, and British Columbia, its highest peak being Mount Shasta, with an elevation of 14,380 feet.

The Teton Mountains are in northwest Wyoming, just south of Yellowstone Park. Their greatest peak is Grand Teton, over 13,000 feet high. The range is part of the Rocky Mountains.

Pike's Peak, one of the high points of the Rockies, is 64 miles south of Denver, Colorado. Its elevation is 14,109 feet, and its summit is almost flat. It was discovered in 1806 by Zebulon Pike. In the easterly part of the Rockies—the Black Hills of South Dakota—is Mount Rushmore. This mountain, a great mass of solid rock, is the location selected by the noted sculptor, Gutzon Borglum, for hewing out the faces of George Washington, Thomas Jefferson, Abraham Lincoln, and Theodore Roosevelt. The area about the Mount Rushmore monument has been designated as a national memorial park.

Another great mountain range extends along the eastern part of the United States and Canada. This is the Appalachian range in the United States and the Laurentians in Canada. The White Mountains, part of this chain, are principally in New Hampshire. The Green Mountains, another section, extend from Vermont north into Canada. A third section is the Blue Ridge Mountains of Virginia.

The highest peak in the Appalachians is Mount Mitchell in North Carolina, with an elevation of 6,684 feet. Other peaks of the chain are Clingman's Dome, in Tennessee, with an elevation of 6,642 feet, and Mount Washington, in New Hampshire, 6,288 feet. The Ozark Mountains, a westerly part of this range, touch five states—Missouri, Illinois,

Arkansas, Oklahoma, and Kansas, and rise to a height of from 1,200 to 1,800 feet.

The Andes Mountains extend for 4,500 miles along the west coast of South America from just south of Panama to the southern tip of the continent. The highest peak of the great mountains is Aconcagua, 22,834 feet high, in Argentina near the border of Chile. Sugar Loaf Mountain rises 1,300 feet above the harbor of Rio de Janeiro, Brazil. The name derives from its shape, which is like the end of a huge loaf.

The Alps of Europe extend into Switzerland, France, Italy, Germany, and Austria. The culminating peak of the entire system is Mont Blanc, in France, with an elevation of 15,781 feet. Another famous Alpine peak is the Matterhorn, near Zermatt in Switzerland. It rises 14,837 feet from a large glacier. It was first scaled in 1865. Famous also in the Swiss Alps is the Jungfrau, near Interlaken, with a height of 13,671.

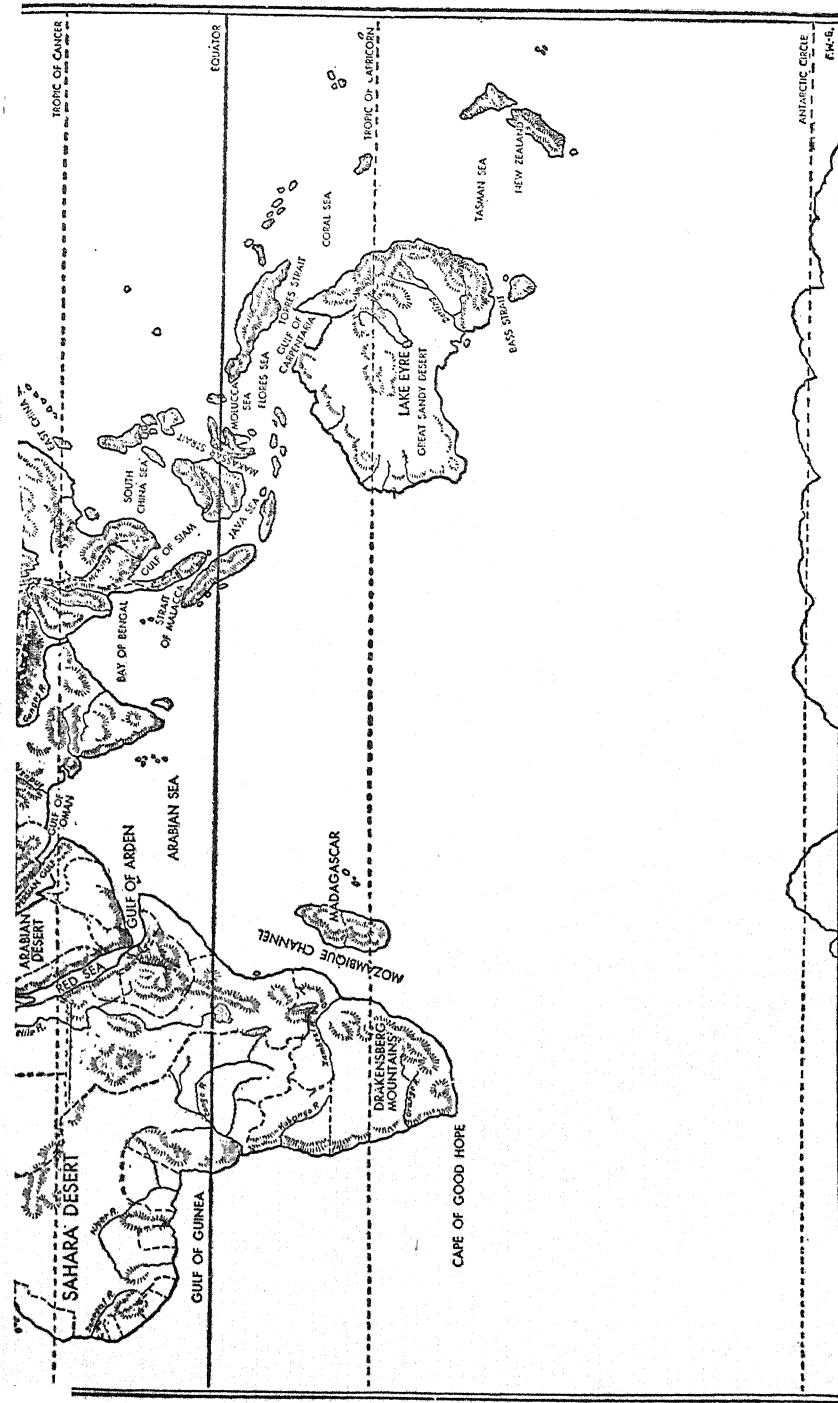
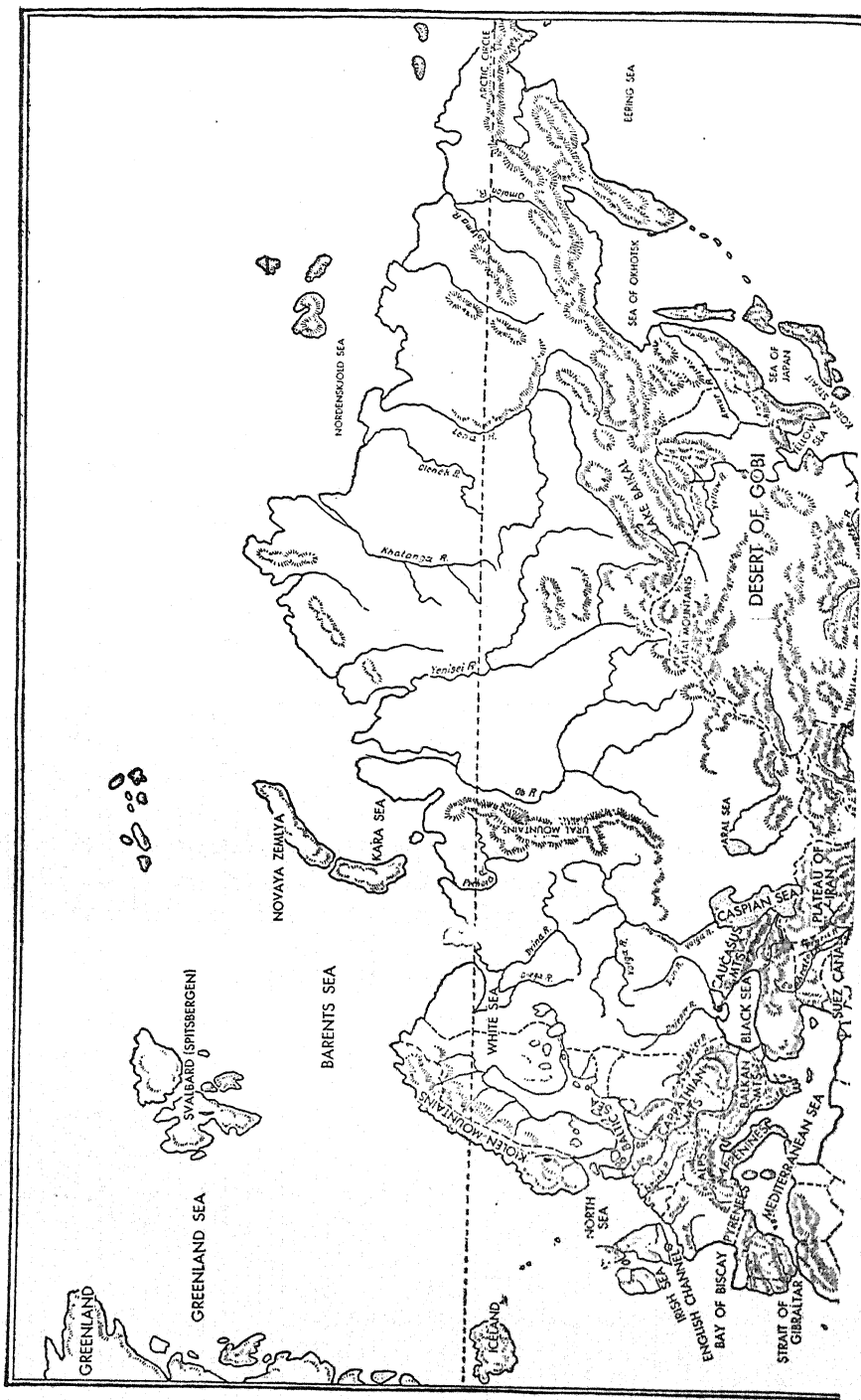
The Pyrenees form the boundary between France and Spain. The range is 270 miles long and from 25 to 90 miles wide. The Pic de Nethou, 11,200 feet high, is the highest of the Pyrenees.

The Jura Mountains lie between France and Switzerland. They run roughly from north-central France to the Rhine River, and form a natural barrier between France and Switzerland at some points.

The Apennines are the chief mountain range of Italy. They extend down the center of the country in a series of rolling hills. The "seven hills" upon which Rome is built are part of this range.

The Vosges Mountains are in the Alsace region of France.

Mount Olympus, in northern Greece, is the highest peak in that country, with an elevation of 9,794 feet. In ancient Greek mythology it was the dwelling place of the gods.



5. THE EASTERN HEMISPHERE
Showing Mountains, Rivers, and Other Physical Features

The Harz Mountains, in northern Germany, between the Weser and Elbe rivers, are noted as a winter sports region and the beauty source of inspiration for many writers and poets.

Between the Caspian and the Black seas in eastern Europe, are the Caucasus Mountains, a range 940 miles long, and rich in minerals. Their highest peak is Mount Elbruz, 18,465 feet. It is the highest mountain in Europe.

Asia is separated from Europe in the north by the Ural Mountains. They form the eastern edge of the great Russian plain and extend from the Arctic Ocean to the Caspian Sea.

The Himalayas lie on the frontier between India and Tibet. This lofty and mysterious mountain system is 2,000 miles long and from 100 to 600 miles wide. It is linked to the mountain chains of China and Afghanistan and forms the source of some of Asia's greatest rivers. The range contains the highest mountain in the world, Mount Everest, with an elevation of 29,141 feet, located in Nepal. Many attempts have been made to scale its peak, but all have failed, the last 1,000 feet of the climb having been insurmountable. British planes flew over the mountain in 1932 and photographed the summit.

The Mount of Olives is a ridge east of Jerusalem, in Palestine. The highest point is 2,700 feet. Mt. Sinai is situated on the peninsula to the east of the Nile, in Egypt. The famous Garden of Gethsemane is at the foot of one height. Mount Ararat, associated with Noah's Ark, is situated in the Armenian section of Turkey, near the border with Iran (Persia), and is believed to be the place where the Ark came to rest.

Fujiyama is the sacred mountain of Japan. It is located 60 miles west of Tokyo and towers 12,395 feet. Its snow cap surmounts a dormant volcanic crater.

The Atlas Mountains in northern Africa extend 1,500

miles from the Atlantic Ocean to the Mediterranean Sea, across the northwest part of the continent, touching both jungle and desert. The highest point is 15,000 feet. The highest mountain on the African continent is Mount Killimanjaro, a volcanic, snow-clad peak in Tanganyika, in eastern Africa. It reaches a height of 19,710 feet.

Mount Kosciuszko is the highest peak in Australia. It is in the New South Wales area and is 7,328 feet high.

VALLEYS, PLATEAUS, DELTAS, ISTHUSES, AND CANALS

Natural and man-made geographical features influence the lives of peoples in many parts of the world. Some are considered here.

The New York State Barge Canal, more than 500 miles long, connects Lake Erie with the Hudson River, and thus with the Atlantic Ocean. The canal was completed in 1918, although much of it had been in existence before that date.

The Chicago Drainage and Ship Canal is part of the connection between the Mississippi River and Lake Michigan. It runs for 39 miles from the lake to the Illinois River, a tributary of the Mississippi, traversing several sections of the city of Chicago.

The Cape Cod Canal connects Barnstable Bay, on the north side of Cape Cod, Massachusetts, with Buzzards Bay on the south. It is a ship canal, 8 miles long.

The widest valley of the United States is the Mississippi River Valley. It covers, with its tributaries, the entire Midwest from eastern Ohio to the Rocky Mountains, and from Canada to the Gulf of Mexico. The Mississippi Delta, in Louisiana, spreads out below New Orleans, where the river breaks up into many small rivers as it flows into the Gulf of

Mexico. Here large, fertile deposits have been built up by sediment carried down the river.

The Welland Canal is in Canada, connecting Lake Erie and Lake Ontario around Niagara Falls. It stretches a distance of 25 miles.

The Plains of Abraham form a plateau along the St. Lawrence River at Quebec, Canada. It was here that the English under Wolfe defeated the French under Montcalm in a battle in 1759. The Plains today are a public park.

Matanuska Valley, in southern Alaska, is a rich farm region and has been developed by farmers who migrated from the drought areas of the United States with government aid. Another important valley of Alaska is the Yukon. It drains an area of about 300,000 square miles, and is the peninsula's best water transport route, the Yukon River, which flows down it, being navigable for 1,600 miles.

Mexico City is located on the Anahuac Plateau, a tableland some 7,500 feet above sea level. This plateau rises sharply from the Gulf of Mexico on one side and from the Pacific Ocean on the other.

An isthmus is a narrow strip of land connecting two larger land areas.

The Isthmus of Panama is a long, narrow stretch connecting Central America with South America. The Panama Canal cuts the isthmus at about its middle. Here the isthmus is approximately 50 miles wide. The canal, in connecting the Atlantic with the Pacific, crosses a bend in the Isthmus of Panama which curiously makes the route from the east or Atlantic coast of the isthmus to the west or Pacific coast, a journey from west to east. The railroad which connects Colon, on the Atlantic side, with the city of Panama, on the Pacific side, is 47 miles long. The route of the canal traverses several lakes and also passes through great cuts in the mountainous regions. The Gaillard Cut (formerly called Culebra

Cut), in which a channel had to be dug, had frequent serious landslides which made construction of the canal difficult. The problem of floating ships through the canal was solved by the construction of locks. Since part of the canal is about 85 feet above sea level, these locks made navigation possible by raising or lowering the water level. The canal saves about 7,800 miles on the trip from New York to San Francisco as against the voyage around South America's Cape Horn.

The Manchester Canal, in England, runs from Liverpool on the Mersey River to the great manufacturing center of Manchester, a distance of 36 miles.

Greece and the Peloponnesus are linked by the Isthmus of Corinth. Here the Isthmian games were played in ancient times, giving the name "isthmus" to this particular piece of land and all others of similar shape.

In the mountains of Bulgaria lies the "Valley of the Roses," a district devoted to the growing of roses for the manufacture of attar of roses perfume. Some 15,000 acres of roses are grown here.

One of the features of the Rhine Valley of Germany is the grape-growing industry. This has made the valley one of the world's great wine-producing regions.

The Kiel Canal links the North Sea and the Baltic Sea through northern Germany. It is 61 miles long and crosses the base of the Danish peninsula.

Two continents—Africa and Asia—are connected by the Isthmus of Suez, a strip of land about 80 miles wide. The isthmus is cut by the Suez Canal, 104 miles long, stretching from the Mediterranean to the Red Sea. Work on the canal was begun in 1859 and was completed 10 years later.

History once centered about the valleys of the Nile and of the Tigris and Euphrates. The Nile Valley of Egypt and Mesopotamia (modern Iraq), the region between the Tigris

and the Euphrates, were the homes of famous early civilizations. The word "delta" originated in the fact that the mouths of the Nile River resembled a great triangle, like the Greek letter "delta." River deltas generally take this form, spreading out into a series of streams entering the larger body of water.

The central and southern regions of Africa constitute a great plateau with extensive plains. The Union of South Africa consists of a series of "steps," or higher land levels, rising up to the central plateau. A veldt is broad, open country in South Africa.

The Donets Basin, the valley of the Donets River, between the Don and the Dnieper rivers, is one of Russia's chief industrial centers, including the important city of Kharkov, sometimes called "the Russian Pittsburgh."

The Crimea is connected to the south of Russia by a narrow neck of land called the Perekop Isthmus. In northern European Russia the Merinsky Canal, 800 miles long, connects the Baltic Sea and the Volga River; it was designed as an inland water route for barges to give the Russian interior an outlet to the Atlantic.

The Karelian Isthmus connects Finland and Russia. It lies between the Gulf of Finland and Lake Ladoga, and was the site of the Mannerheim Line, Finland's fortification against Russia.

Both the Ganges and the Indus rivers in India reach open waters through great deltas. These are large, fertile and thickly populated areas of the country.

The Isthmus of Kra is on the Malay Peninsula, separating the Gulf of Siam from the Indian Ocean. It is the narrowest point of the long peninsula.

Much of the commerce of China travels through the Yangtze Valley, the land enriched by one of the greatest

rivers of the world. This valley is immense in area and active in industry and farming.

BAYS AND GULFS

Bays and gulfs are usually bodies of water, almost wholly surrounded by land, opening into a sea or ocean. The water is usually salty.

The two largest of such water areas in the Western Hemisphere are the Gulf of Mexico and Hudson Bay. The Gulf of Mexico is due south of the United States and east of Mexico. Florida stretches along its eastern side almost to Cuba, and the Yucatán Peninsula reaches out from Mexico, forming a southern boundary of the Gulf. Hudson Bay is just below the Arctic Circle, the northern tip of the bay almost touching the circle. The bay is actually a great inland sea, connected with both the Atlantic and Arctic oceans. It is 800 miles long and 600 miles wide at the points of greatest distance.

Chesapeake Bay is the largest bay in the continental United States. From the Atlantic, between Maryland and Virginia, it extends 200 miles north and has a width of from 4 to 40 miles.

Three large bays are located in the Great Lakes. These are Saginaw Bay, Green Bay and Georgian Bay. Saginaw is on the west shore of Lake Huron; Green Bay, in Michigan and Wisconsin, is in northern Lake Michigan; and Georgian Bay is on the Canadian side of Lake Huron.

Florida Bay lies between the mainland of Florida, at the southern tip, and the Florida Keys, a chain of islands stretching to the southwest. It is part of the Gulf of Mexico. Mobile Bay, an arm of the Gulf of Mexico separated from the Gulf by a series of long islands, penetrates north from the Gulf to

the city of Mobile. It was the scene of the battle of Mobile Bay.

San Francisco Bay lies between the cities of San Francisco and Oakland in California. It is 55 miles long, in a north-south direction, and about 10 miles wide. Its entrance from the Pacific Ocean is the famous Golden Gate.

The Gulf of California is an extensive arm of the Pacific Ocean stretching up between Mexico and Lower California.

Guantanamo Bay lies at the eastern end of the Island of Cuba. It faces south into the Caribbean Sea, and is the site of an American naval base.

Canada has several noteworthy bays and gulfs. One of the largest is the Gulf of St. Lawrence, lying at the mouth of the St. Lawrence River. On its north are Labrador and Quebec, with New Brunswick and Nova Scotia to the south. Newfoundland is on the east. The gulf connects with the Atlantic Ocean. The Bay of Fundy is between Nova Scotia and New Brunswick, in eastern Canada. Part of the State of Maine touches it. The Bay of Fundy is an arm of the Atlantic Ocean 180 miles long. It is famous for the height of its tides, which sometimes rise 50 feet.

Baffin Bay is a great stretch of the Atlantic and Arctic oceans between Canada and Greenland. It is almost wholly within the Arctic Circle, and great sections of it are frozen over much of the year. It is a rich source of fish and along its shores are found numerous fur-bearing animals.

The Gulf of Alaska is formed by the northern part of the Pacific Ocean, along the coast of Alaska from Canada on the east to the Alaska Peninsula on the west. Beyond the peninsula is Bristol Bay, another section of the Pacific Ocean.

Three large gulfs indent the shores of Central America. The Gulf of Honduras is a section of the Caribbean Sea along the coast of British Honduras, Guatemala, and Hon-

duras. Mosquito Gulf, on the northern side of Panama, is another part of the Caribbean. On the southern side is the Gulf of Panama, a section of the Pacific Ocean. The Panama Canal opens into this gulf.

The Gulf of Darien is in the Caribbean Sea, between Colombia and Panama, off the northwest coast of South America. It is on the Atlantic side of the Panama Canal.

In Europe, the Bay of Biscay forms part of the Atlantic coastline of both Spain and France. The northern coast of Spain lies along it, as does the western coast of France for some distance northward. Strong winds and currents make it dangerous for navigation.

The Mediterranean Sea branches off into many gulfs and bays as it touches the shorelines of Europe and Africa. One of these, the Gulf of the Lion, lies in the southeast corner of France, where the coast bends south toward Spain. Marseilles is on the eastern shore of the gulf. Greece is almost cut in two by the Gulf of Corinth, which reaches across the country from the Ionian Sea nearly to the Aegean Sea; and the Corinth Canal completes the water passage.

Italy, with its rugged Mediterranean shoreline, contains a number of gulfs and bays. The Gulf of Genoa and the Gulf of Naples are associated with two leading Italian seaports. The former is on the northwest Italian coast and the latter is on the western side. Venice and Fiume also have gulfs named for them. The Gulf of Taranto lies between the heel and sole of the Italian "boot." It is an inlet of the Ionian Sea. The naval base of Taranto is on the northeast shore.

The northern continental shoreline of Europe and Russia is cut by several bays and gulfs along its great length. The Gulf of Bothnia divides Sweden from Finland. This is the northward arm of the Baltic Sea, approximately 450 miles long. The Gulf of Finland is bounded by Finland on the north and Russia on the south, and is the eastward arm of

the Baltic stretching to Leningrad. Along the northern shore of Russia are Cheshskaya Bay, an arm of the Barents Sea; the Gulf of Ob, a long arm of the Kara Sea; and the Khatangski Gulf and Barkhaya Bay, both arms of the Nordenskiöld Sea.

The Gulf of Guinea, that part of the Atlantic Ocean lying south and west of Africa, is lined by the Ivory Coast, the Gold Coast, Nigeria and parts of French West Africa and French Equatorial Africa. The Gulf of Aden, on the opposite side of the African continent, forms the southern entrance to the Red Sea, extending from the Arabian Sea between southern Arabia and British, Italian, and French Somalilands.

India and Burma, in southern Asia, are separated by the Bay of Bengal. This is the large northern arm of the Indian Ocean. It forms a body of water similar to the Arabian Sea, west of India. The Gulf of Martaban lies not far west of the border between Burma and Thailand (Siam); on this gulf is Rangoon, the most important port of Burma. The Gulf of Siam is part of the China Sea on the southern shore of Thailand (Siam) and French Indo-China. It is separated from the Bay of Bengal by the Malay Peninsula.

Two of Japan's chief cities, Yokohama and Tokyo, are on Tokyo Bay, an arm of the Pacific Ocean which extends northward some 75 miles into Honshu, chief of the Japanese islands. Yokohama is at the head of the bay and Tokyo is 18 miles farther north. Many other bays and gulfs dot the shores of the Japanese islands.

The Lingayen Gulf is an arm of the South China Sea extending southward into the island of Luzon in the Philippines. Its southern shore is about 100 miles north of the city of Manila. Manila Bay, situated on the west side of the same island, forms one of the finest harbors in the Far East, with a circumference of 120 miles.

The northeastern shore of Australia bends inward to form

the Gulf of Carpentaria. This body of water cuts about 500 miles into the island continent and is approximately 350 miles wide from east to west. A similar indentation along the southwestern shore of Australia forms the Great Australian Bight. Both of these waters are part of the Pacific Ocean. Botany Bay, also a part of the Pacific Ocean, is located 5 miles south of Sydney, Australia. It was so named by Captain James Cook in 1770 because of the great variety of plant life he found there. This bay is associated with the first Australian settlements.

South of New Zealand and across the Ross Sea, is the Bay of Whales, which lies against the great ice barrier of Antarctica, near the South Pole. Headquarters for several South Pole expeditions have been set up in this bay.

LAKES

Lakes, inland bodies of water completely surrounded by land, consist usually of fresh water. While some are navigable for large boats, the vast majority are too shallow or small to accommodate shipping of any size.

Five large lakes make up the Great Lakes, along the border of the United States and Canada. Lake Superior, touching Minnesota, Wisconsin, Michigan, and Canada, is the largest fresh-water lake in the world; it is the furthest west of the Great Lakes. It is approximately 31,800 square miles in area and is more than 350 miles long. Lake Michigan is the only one of the Great Lakes entirely within the United States, and is the largest body of water within the territorial boundaries of the nation. The other Great Lakes are Huron, Erie and Ontario. Lake Huron, just east of Lake Michigan, is the second in size; Lake Michigan is third; Lake Erie fourth; and Lake Ontario is the smallest and the furthest east, extending into New York State.

Among the other noted lakes wholly within the United States is the Great Salt Lake, located in northwestern Utah. It is unique in that it contains about 14% mineral salts, and is 80 miles long and from 20 to 50 miles wide. Yellowstone Lake, in the northwest corner of Wyoming, is one of the chief attractions of Yellowstone Park. Lake Okeechobee is in south-central Florida; Lake Tahoe is on the border between California and Nevada; and Lake Oneida is in north-central New York State, not far from Lake Ontario. States containing an unusual number of small lakes are Minnesota, Wisconsin, Michigan, Maine, New Hampshire, Vermont, New York and Florida, and several in the Pacific Northwest. Minnesota is estimated to have more than 11,000 separate lakes.

Lake Champlain extends from New York into Vermont and Canada. It is long and narrow, stretching north into Quebec Province. It is 125 miles in length, providing water communication between the United States and Canada.

Lake St. Clair, between Lake Huron and Lake Erie, is a small but important communication link. It touches both Canada and the United States.

The major bodies of water which help form the boundaries of the continental United States are: Atlantic Ocean, Gulf of Mexico, Pacific Ocean, Lake Superior, Lake Huron, Lake Erie, Lake Ontario and the St. Lawrence River.

Several large and many small lakes dot Canada. Great Bear Lake and Great Slave Lake are located in northwestern Canada and are among the largest lakes in North America. Great Bear, which is crossed by the Arctic Circle, is 150 miles long. Great Slave Lake, to the southeast, is almost as large. Both are in the District of Mackenzie, Northwest Territory. Another important Canadian lake is Lake Winnipeg, in Manitoba Province, central Canada. The city of Winnipeg is on its southern shore. The lake covers more than 8,000 square miles.

The Isthmus of Panama is broken by Gatun Lake, through which runs the Panama Canal in specially dredged channels. This lake is densely covered with small islands of tropical growth. North of Gatun Lake, in Central America, are two lakes of considerable size. The larger is Lake Nicaragua, 110 miles long and lying 12 miles from the Pacific Ocean. The smaller is Lake Managua. Both are in Nicaragua.

South America, though not a continent marked by lakes, has two of considerable importance. One, Lake Titicaca, is noted as one of the highest lakes in the world. In the mountains on the border between Peru and Bolivia, Titicaca is 12,500 feet above sea level. It is the largest lake in South America, 130 miles in length.

Lake Maracaibo, in Venezuela, is at the northernmost rim of South America and is connected directly with the Atlantic Ocean by a narrow channel into the Gulf of Maracaibo. This supplies an excellent outlet to the sea for a great oil-producing region.

Although the British Isles have no lakes of great size, Scotland and Ireland are both noted for their many small lakes. Loch (Lake) Lomond is the largest lake in Great Britain, famous in song and legend. It is 24 miles long. The Lakes of Killarney, in County Kerry at the southwest corner of Eire (Ireland), are three Irish lakes of greatest beauty.

Lake Geneva, in Switzerland, has had many international meetings on its shores. The League of Nations headquarters was situated there. Geneva is the largest of the Swiss lakes; actually part of it is in France; the lake, 55 miles long, is famous for its clear, blue water. Other lakes in Switzerland are Lake Zurich and Lake Lucerne; while Lake Constance is partly Swiss and partly German. The many small lakes add to Switzerland's noted scenic attractions.

Lake Balaton is in western Hungary. It is the largest of central European lakes.

The lake district of Italy is in the northern section of the country, on the slopes of the Italian Alps. Two of the most famous lakes of this area are Como and Maggiore.

Africa is the location of the second largest lake in the world, Lake Victoria. It is in the central part of the continent and covers 27,000 square miles. It lies 3,800 feet above sea level. Another noted African lake is Chad, at the southern edge of the Sahara Desert near Nigeria in French Equatorial Africa. During the rainy season it is three times larger than in the dry season, varying from 7,000 to 30,000 square miles in area. A third African lake of note is Lake Tanganyika, long and narrow, south and west of Lake Victoria. It ranks next to Victoria in size among African lakes. It was discovered in 1858 and was explored by both Stanley and Livingstone. The lake has 12,500 square miles of water, lying 2,500 feet above sea level. Among other lakes of the southeastern section of Africa are Nyasa, Rudolf, Albert, Edward and Mweru. Other small lakes dot the continent.

Lake Van, situated in eastern Turkey, is one of the largest lakes in Asia Minor. To the east, across the border in Iran (Persia), lies Lake Urmia.

Finland, in northern Europe, is often known as "The Land of a Thousand Lakes"; more than 40,000 are scattered across the small country. They form continuous waterways in many places. These lakes are remains of glacial deposits. Lake Ladoga, on the border between Russia and Finland, is Europe's largest lake. It is situated just 40 miles east of the Russian city of Leningrad. Not far away is Europe's second largest lake, Onega, also in Russia.

Lake Balkhash lies in central Russia and is one of the most important inland bodies of water in the whole of Russia. It is 323 miles from tip to tip. The greatest salt lake of the world is Lake Aral (sometimes called the Aral Sea) in Asiatic Russia. It is 200 miles east of the Caspian, and is the largest

lake of any kind in Asia, having a total area of 26,000 square miles. Lake Baikal, in central Siberia, is the sixth largest lake in the world. It covers 13,000 square miles and is ice-bound from November to April.

Among the many lakes of China, Koko-Nor, in the west, is important. It lies in the mountain fastness between China and Tibet.

Eyre, a salt lake, is one of the few sizable lakes in Australia. Most of it evaporates during the dry season, but it fills up again during the rains. The lake is located in southern Australia and is 35 feet below sea level. It is quite shallow most of the time. Other Australian lakes of some size are Lake Torrens and Lake Gairdner.

RIVERS

The rivers of the world are many. We shall devote our attention here to the most important, mentioning others later—in our discussion of the various countries.

The Mississippi and Missouri rivers form the longest river system in the world. Together they are 4,200 miles long. The Mississippi rises in Minnesota, the Missouri in Montana. They meet 14 miles north of St. Louis, Missouri, and their waters flow from there to the Gulf of Mexico as the Mississippi River.

The Connecticut River rises in northern New Hampshire and flows south, emptying into Long Island Sound. It is a waterway for a considerable part of the New England States.

Another famous river of the United States is the Hudson, named after Henry Hudson, the English captain of a Dutch exploration ship. This river lies entirely within New York State or along the state line; and reaches from its source in the Adirondack Mountains to the mouth of New York Bay, a distance of 320 miles. It is of great importance

as a waterway, and is inseparably associated with New York City.

The Delaware River rises in New York State and flows through Pennsylvania, along the border between New Jersey and Delaware, and empties into Delaware Bay. Another important river of this general area is the Susquehanna, which rises in New York and flows across Pennsylvania and Maryland to Chesapeake Bay.

The Potomac River flows a distance of approximately 450 miles from the mountains of West Virginia to the Atlantic Ocean. Washington, D.C., capital of the United States, is situated on its bank.

The Ohio River forms part of the boundaries of Ohio, Indiana, and Illinois, separating these states from Kentucky and West Virginia. It rises in the mountains of Pennsylvania and flows into the Mississippi River.

Three important rivers lie in the southern section of the United States. The Arkansas flows southeast from Colorado, through Kansas, Oklahoma, and Arkansas, to empty into the Mississippi. The Red River, rising in northern Texas, forms the border between Texas and Oklahoma and flows through Louisiana to the Mississippi. The third river of this area is the Rio Grande, which has its source in the Colorado Rockies and flows south across New Mexico until, at the Mexican border, it turns southeast to form the border between the United States and Mexico. It flows finally into the Gulf of Mexico.

The Colorado River runs south from Colorado, across Utah and Arizona and empties into the Gulf of Colorado. For part of its distance it forms the border separating Arizona from Nevada and California.

The Columbia River, flowing in Oregon and Washington, has a total length of approximately 1,500 miles. It is noted for its salmon, since vast numbers of the fish travel up it each

year to their spawning grounds. The United States government has erected ladders along the river to help the salmon traverse the Columbia's rugged course.

Several rivers of the United States bear the names of states. Some of these are the Connecticut, Arkansas, Illinois, Ohio, Tennessee, Colorado, Mississippi, Missouri, Wisconsin, and Delaware.

The St. Lawrence River constitutes part of the boundary between the United States and Canada. It rises in Lake Superior and flows to the Atlantic Ocean, some 2,200 miles away. Its waters form part of a great inland waterway.

The Red River of the North, flowing through South Dakota and northward into Lake Winnipeg, Canada, drains rich wheat lands of both the United States and Canada. The Mackenzie is the second longest river in North America, extending for 2,525 miles through northwest Canada and emptying into the Arctic Ocean. It is navigable for part of its length, but much of its course is frozen over during many months of the year.

Alaska's principal river is the Yukon, which starts in the Canadian Yukon and flows for 2,200 miles across Alaska to the Bering Sea. It achieved considerable importance as the route to the Alaskan gold fields during the historic "rush."

The most noted river of South America is the mighty Amazon, which is close to 4,000 miles in length from the Peruvian Andes to the Atlantic Ocean and drains more than 2,000,000 square miles of land. It is navigable for about 2,000 miles inland from the Atlantic Ocean. Another great river of South America is the Orinoco, flowing through Venezuela from the border of Colombia to the Atlantic Ocean south of the island of Trinidad. In the southern part of the continent the waters of several rivers meet to form the Plata

River between Uruguay and Argentina, which empties into the Atlantic Ocean southeast of Buenos Aires.

Most famous of the rivers in England is the Thames, on the banks of which London is situated. This river is 217 miles long and flows through the center of London, then widens into an estuary 27 miles broad at its mouth. The Severn River flows from south-central England into the Bristol Channel.

The River Shannon, most famous of Irish rivers, has its rise in the lakes of central Ireland and flows south to the Atlantic Ocean.

France has several rivers of note. Among these are the Seine, the Loire, the Garonne and the Rhone. The Seine, on which Paris is situated, flows northwest from central France to the English Channel. The Loire begins in central France and winds toward the west coast, emptying into the Bay of Biscay, while the Garonne rises in the Pyrenees Mountains and flows northwest. At Bordeaux it widens into a large arm of the Bay of Biscay reaching far inland. The Rhone flows south from east-central France into the Mediterranean Sea at the Gulf of the Lion. Other rivers of France, especially connected with the First World War, are the Somme, Marne and the Meuse. The Somme rises near St. Quentin and flows northwest to the English Channel. The Marne runs from northeast France to the vicinity of Paris. The Meuse cuts across northern France into Belgium.

The Vltava or Moldau River is associated with Czechoslovakia. It is one of the chief rivers of the district formerly known as Bohemia.

There are several great rivers in Spain. The Guadalquivir rises in the southern part and flows southwest to the Gulf of Cadiz, a part of the Atlantic Ocean. The Guadiana, further north, rises in south-central Spain and flows west to Portugal, where it turns south to the Gulf of Cadiz. The Ebro

flows from the Pyrenees across north-central Spain to the Mediterranean, a distance of about 600 miles. It formed an important battle line during the Spanish war of 1936 and 1937. The Douro River begins in northwest Spain, flows along the border of Spain and Portugal, then cuts across Portugal to the Atlantic Ocean. Similarly the Tagus has its source in the mountains of Spain and crosses Portugal, reaching the Atlantic at Lisbon.

One of the most scenic of all European rivers, the Rhine, rises in the mountains of Switzerland, flows between Germany and Switzerland, turns north along the border between Germany and France, then continues through the German Rhineland to the Netherlands and into the North Sea, a distance of 725 miles. Other famous German rivers are the Elbe, the Oder and the Weser. The Elbe flows from the Ore Mountains in Czechoslovakia northwest across Germany to the North Sea. The Oder extends from eastern Germany to the Bay of Pomerania, a part of the Baltic Sea, and the Weser rises in northwestern Germany and flows north to the North Sea.

An immortal river of Europe is the Danube. It rises in Germany's Black Forest and flows through the capitals of three nations—Austria, Hungary, and Yugoslavia—to empty into the Black Sea. It is the second largest river of Europe.

The Iron Gates is the name applied to a narrow gorge on the Danube River in Rumania. The mountain defile through which the river flows is about two miles long and creates a danger to navigation.

Three among the many rivers of Italy are the Po, the Tiber and the Arno. The Po, wide and winding, extends through northern Italy from the Alps to the Adriatic Sea, a distance of 400 miles. The Tiber rises in central Italy and flows southwest to the Tyrrhenian Sea. Rome lies on its

banks. The Arno's source is in the Etruscan Apennines, and it winds west, through Florence, to the Ligurian Sea.

A small stream in northern Italy is Caesar's famed Rubicon. Caesar's crossing of this river in 49 B.C. meant war with Pompey; the crossing has since come to mean the making of an irrevocable decision.

The Vistula of Poland flows from the northwestern section of the country north and west to the Gulf of Danzig, on the Baltic Sea. As it approaches the gulf it widens appreciably. Its last few miles are through the city of Danzig. The Niemen River rises near the border between Russia and Poland and winds around as it flows through Lithuania to the Baltic. The Bug is a river of western Poland, about 450 miles long. It is a tributary of the Vistula and empties into the Baltic at Danzig.

European Russia contains several important rivers. The most famous is the Volga, the longest river in all Europe. The Volga rises near Leningrad, far to the north, and winds south some 2,230 miles to the Caspian Sea. Other rivers of European Russia are the Don, the Dnieper, the Pechora and the Severnaya Dvina. The Don of southern Russia flows south into the Sea of Azov. The Dnieper empties into the Black Sea. The Pechora and Severnaya Dvina are in the north. The former rises in the Ural Mountains and flows north to the Barents Sea. At first a narrow stream, it widens into a great waterway as it is augmented by the Usa and the Izhma rivers. The latter is formed by the convergence of several small rivers and flows from north-central Russia to the White Sea.

Asiatic Russia is cut by the Ob, the Lena and the Yenisei rivers. The Ob, in Russian Siberia, flows 2,300 miles from the Ural Mountains of central Russia north to the Gulf of Ob, an arm of the Kara Sea reaching deep into northern Russia. The Ob is connected by canals to the Yenisei, also in

Siberia, forming part of one of the most vital strategic transportation systems of the country. The Yenisei is one of Russia's longest rivers, flowing from southern Russia north to the Arctic Ocean. The Lena runs from the south, near Lake Baikal, north across most of the country to the Nordenskiöld Sea.

In China the Yangtze and the Hwang-Ho, or Yellow River, are the chief rivers. The Yangtze flows 3,000 miles from the mountains of Tibet to the Pacific and is one of the great waterways of the world. The Hwang-Ho, 2,600 miles long, is a muddy stream emptying into the Yellow Sea. It is navigable only a short distance upstream. The Mekong is the chief river of French Indo-China, part of its course forming the border between Indo-China and Thailand (Siam). Its length is 2,600 miles from Tibet to the South China Sea.

Two great rivers of India are the Ganges and the Indus. The Ganges, of great religious significance to the natives, flows south from northern India to empty into the Bay of Bengal in a wide series of mouths. The Indus, which is longer, rises in the Hindu Kush Mountains of northern India and flows south to the Arabian Sea.

The Amur River, in eastern Asia, forms part of the boundary between Soviet Siberia and Manchukuo (Manchuria). It is among the longest rivers of Asia.

The Tigris and Euphrates drain parts of Turkey, Syria and Iraq in western Asia and come together to empty into the Persian Gulf. The valley between these two rivers, Mesopotamia, is regarded as one of the "cradles of civilization." Another river of this general area is the historically famous Jordan in Palestine. It flows between the Sea of Galilee and the Dead Sea. Rising north of the Sea of Galilee, it winds through "the plain" of the Old Testament and into the Dead Sea.

Africa has several large and famous rivers. The best

known is the Nile, the longest single river in the world. The White Nile, arising in central Africa, is joined by the Blue Nile (flowing from Ethiopia) to form the Nile proper which flows through Egypt and empties into the Mediterranean Sea. From its furthest source the Nile flows about 4,000 miles. The Congo River rises in the mountains of the Belgian Congo and flows north and then west and finally south to the Atlantic Ocean. The Zambezi flows from Lake Victoria in central-southern Africa north and east to Mozambique Channel, part of the Indian Ocean. The Niger runs south from the central part of French West Africa to the Gulf of Guinea, on the Atlantic Ocean.

Most important of the rivers of Australia is the Murray, flowing across the southeastern part of the continent and emptying into Encounter Bay at the Indian Ocean. The Murray is joined in its course by the Darling River, which flows from the east-central section of the country southward.

DESERTS, CANYONS, GORGES, GLACIERS, AND CAVERNS

Let us examine some of the more unusual features of the earth's physical make-up.

Zion Canyon, in southwestern Utah, contains a magnificent gorge ranging in depth from 1,500 to 2,500 feet. Nearby is Bryce Canyon, noted for its brilliantly colored rock formations. Many unusual shapes dot the gorges, which reach a depth of 3,000 feet in some places.

The Grand Canyon is located in northern Arizona. It is a deep gorge cut by the Colorado River, extending for 217 miles, with a width of from 4 to 18 miles on the rim. Its wonderful-rock formations reveal the geological development of the ages. In Yellowstone Park, a formation cut by the

Yellowstone River is known as the Grand Canyon of the Yellowstone.

Carlsbad Caverns are great underground caves in southeastern New Mexico. The whole extent of the caves is unknown, but 720 acres of land lie over the areas explored. The "Big Room" of these caverns is $1\frac{1}{2}$ miles long. Hanging from the ceilings are deposits of lime or other rock formations known as stalactites. Other formations, called stalagmites, rise from the floors.

The Luray Caverns of Virginia are noted for their extensive passageways and beautiful stalactites. Endless Caverns, also in the Shenandoah region of Virginia, are likewise of extraordinary interest.

Mammoth Cave, in Kentucky, is reputed to be the world's greatest underground cavern. It contains about 100 miles of explored passages. The Temple, the greatest room, covers 5 acres, with a dome 120 feet high.

Virginia and southern Utah contain the two most famous natural bridges of the United States. They are formed by water and wind erosion which cuts through rock, leaving a span over the cavity. Natural Bridge, Virginia, is probably the best known of its kind.

Petrified forests are found in Arizona and in the state of Washington. Trees turned to stone by mineral action centuries ago still show all the characteristics of trees, even to the rings indicating their age.

The Mohave Desert is a colorful but barren region of southern California. Many Hollywood motion pictures are made "on location" here because of the beautiful desert areas. The Great American Desert extends from western Utah into Nevada, south of the Great Salt Lake basin. It consists of barren, stony mountain ranges and stretches of desert plain.

Glacier National Park contains at least 80 glaciers. The area, on the Montana-Canadian border, has many small and

some large ice fields among its high mountain peaks. The Muir Glacier in Alaska is one of the largest glaciers of North America, having a three-mile frontage on the sea and covering as much territory as Rhode Island. Glacier Bay, in southeastern Alaska, was designated as a national monument of the United States in 1925. It consists of a fiord 60 miles long, with several large glaciers discharging into it. Muir Glacier is one of the largest.

A moraine is a mass of earth, stones and other matter deposited in the wake of a glacier. Various types of moraines aid geographers in telling how a particular region developed during and after the ice age.

Glaciers become a menace to shipping by producing icebergs. These are huge blocks of ice that break off from glaciers in the Arctic and Antarctic regions and drift with ocean currents. Icebergs drift fairly far south into the Atlantic and are a constant peril along northern shipping lanes.

The greatest of all glaciers are in Greenland, which is almost entirely one vast glacier, or ice-cap, and in Antarctica. The South Polar ice-cap covers hundreds of thousands of square miles, sometimes to a depth of 2 miles.

The Atacama Desert is an arid region of South America, lying in the northern part of Chile.

Fingal's Cave, on the island of Staffa in the Hebrides, off Scotland, is renowned for its beauty and wildlife. The cave is 227 feet long and 42 feet wide, is lined with great pillars and is partly filled with water.

The Blue Grotto, on the island of Capri in the Bay of Naples, Italy, is one of several remarkable caverns in this area. Its only entrance is from the sea by small boat.

The low-lying plains of northern Russia are known as tundras. These are vast, treeless areas, frozen throughout many months of the year.

The Yangtze Gorges of China are known far and wide for their beauty. They are in western China, where the Yangtze River winds its way through the mountains between Chungking and Ichang.

One of the great geographic features of central eastern Asia is the Gobi Desert, a wasteland some 4,000 feet above sea level and extending over a large part of Mongolia and Chinese Turkestan. Important evidences of prehistoric life have been found there.

The Sahara is the greatest desert in the world. It covers nearly the whole of northern Africa, an area of approximately 3,000,000 square miles, comparable in size to the whole of the continental United States. It consists of low and high areas which range from 100 feet below sea level to 9,000 feet above. It includes three mountain ranges and many hills and dunes.

The Libyan Desert is a distinct part of the Sahara, and is sometimes called the Western Desert. It stretches from French North Africa to Egypt. The Nubian Desert, in the eastern Nile region, is another section of the Sahara.

There are two glaciers in Africa, both near the equator. These are situated on the lofty peaks of Kenya and Killimanjaro. The former is a mountain just south of the equator, reaching a height of about 17,000 feet, and the latter is farther south, on the border between Kenya and Tanganyika, and reaches a height of 19,300 feet.

Australia, so far as is known, has no glaciers. However, there are some high mountains on this continent which appear to have had alluvial ice at one time. But the Australian continent has proportionately the largest desert areas of any continent. The entire western section is mostly dry, sandy land, sparsely populated. The Great Sandy Desert is one of the large arid regions of the continent. It lies in the north-

west section of Australia. Another Australian desert is the Great Victoria, in the southwest.

VOLCANOES, GEYSERS, AND WATERFALLS

To geographers, great volcanic activity generally means that new earth formations are being created, and that the volcanic area is relatively young. Earthquake countries are still in the process of formation.

The Continental United States, which is a relatively old earth formation, has only one active volcano, Lassen Peak. This is situated in Lassen Volcanic National Park in north-eastern California. After centuries of quiet, it became active in 1914. In Alaska, Mount Katmai, an active volcano, has produced the "Valley of 10,000 Smokes." This once fertile region is now covered with volcanic dust from the mountain and has innumerable jets of steam rising through the ground.

Mount Pelée, on the island of Martinique in the West Indies, erupted in 1902, killing some 32,000 people. Previous recorded eruptions of this volcano occurred in 1762 and 1815.

Mexico's most famous volcano is Popocatepetl, 17,520 feet high, located 40 miles outside of Mexico City, to the southeast. Although it has not erupted since 1540, it constantly emits smoke and ashes.

Two lofty volcanic peaks in Ecuador, about 60 miles apart, are Chimborazo and Cotopaxi. The former, a volcanic mass without a crater, is more than 20,000 feet high. The latter, rising 19,550 feet high, has a perfect cone.

One of the world's most famous volcanoes is Mount Vesuvius, near Naples, Italy. An eruption of this volcano in 79 A.D. destroyed the city of Pompeii, killing its people as they went about their daily occupations. Excavations have pro-

vided valuable data on the life of the period. Mount Etna, in Sicily, is the highest volcano in Europe. Its main cone is 10,750 feet high, and it has 200 smaller cones around it. Many destructive eruptions of this volcano have occurred, the latest in 1928. Stromboli is a volcano situated in the Lipari Islands, northwest of Sicily. It is sometimes called the "Lighthouse of the Mediterranean" because its glow can be seen many miles at sea.

Kilauea, on the island of Hawaii, is one of the famous volcanoes of the world, 4,100 feet high with a crater $2\frac{1}{2}$ miles in diameter. Mauna Loa is another well-known volcano in the Hawaiian Islands. Situated on the same island as Kilauea, it stands more than 17,000 feet high.

The Dutch East Indies, particularly Java, have extremely fertile soil as a result of volcanic activity. Just west of Java is Krakatao which erupted with terrific force in 1883. This whole region experiences frequent eruptions and earthquakes.

Fuji (Fujiyama) is a volcano that forms a center of Japanese religious life. The mountain rises 12,395 feet from the Pacific Ocean, and many temples dot its slopes up to the snow-capped peak.

Yellowstone National Park has more geysers than all the rest of the world combined. The park, in northwest Wyoming, extends into Idaho and Montana. It contains hot springs and a mountain of sulphur in addition to geysers, lakes and mountains. Old Faithful, one of the great geysers of the park, performs once each hour. It is quite accurate as a timepiece, hurling its steaming water into the air right on the dot.

Hot Springs National Park in central Arkansas is noted for the healing waters which flow from 46 hot springs in the 900-acre slope of Hot Springs Mountain.

Iceland is another area in which geysers are found. Here it is possible to cook an egg over a small geyser. The island contains many hot springs used by the Icelanders for cooking, washing and even heating their homes.

Both Japan and New Zealand are Pacific areas containing innumerable hot springs and geysers. In mountainous Japan many homes have hot springs piped in for domestic use. North Island, in New Zealand, has many steaming holes in the ground.

The highest waterfalls in the United States are found in the Yosemite Valley, in western California. The valley, 6 miles long and one mile wide, has walls 3,000 to 5,000 feet high over which several streams plunge in falls of varying heights. Two of the highest falls in the park are the Yosemite Falls, with a total of 1,620 feet in two separate drops, and Ribbon Falls, which plunges 1,612 feet in a single drop. Bridal Veil Falls, also in the park, is known for its beauty, although it drops only 620 feet.

Two separate cataracts form Niagara Falls. These are the American Falls, on the United States side, and the Canadian, or Horseshoe Falls, on the Canadian side of the Niagara River, which flows from Lake Erie to Lake Ontario. The Falls are 167 feet high. The Cave of the Winds is situated behind Lena Fall, a part of Niagara Falls. Recorded stunts at Niagara Falls include eight crossings of the falls by tight-rope wire, two plunges over the Horseshoe Falls in barrels and one in a huge rubber ball.

The Great Falls of the Potomac, a few miles above Washington, D.C., between Maryland and Virginia, are actually a long series of rapids interspersed by small cataracts.

Other famous falls in the United States are Shoshone Falls in Idaho, Missouri Falls in Montana, and Seven Falls in Colorado.

Montmorency Falls in Quebec Province, Canada, not far

from the city of Quebec, drop 250 feet, and are widely known as a scenic attraction. Grand Falls, with a drop of 302 feet, is situated in Labrador, on the eastern coast of Canada.

Kukenaam Waterfall is located in British Guiana, in northern South America. It has a sheer drop of 2,000 feet.

The highest waterfalls in Europe are Gavarnie Falls, in France. Here the water cascades for a distance of 1,385 feet.

A famous waterfall in Japan is Splendor-of-Sun, located in the Nikko mountains north of Tokyo. It is 350 feet high.

The world's highest waterfall is reputed to be Tugela, in Natal, Union of South Africa. Its series of plunges carries it down for a total distance of 2,810 feet. The most famous of African falls is Victoria Falls, located on the Zambezi River in Rhodesia, South Africa. The falls consist of four main cataracts, altogether more than a mile long. The main falls are 347 feet high. Victoria Falls are larger in width and depth than Niagara, Victoria being 5,700 feet wide and 347 feet deep and Niagara 5,300 feet wide and 167 feet deep.

CLIMATES

Climates, or weather conditions, are determined by many factors, chief of which are sun, wind and rain. The barometer is an instrument designed to measure atmospheric pressure from which it is possible to predict weather conditions and changes. Usually a barometer consists of a long tube of mercury, the bottom of which is immersed in a cup containing the same substance. As the mercury rises or falls in the tube, the air pressure is measured. A falling barometer indicates bad weather is coming. Low pressure always indicates that a storm or other disturbance is near. A rising barometer indicates good weather.

The five climate zones of the world are the north and south frigid zones, north and south temperate zones, and the torrid

zone. The Arctic and Antarctic Circles on the map bound the areas of the two frigid zones. These lines are $23\frac{1}{2}$ degrees from each pole. They also indicate the northern and southern limits of the temperate zones, which extend from the Arctic and the Antarctic Circles south and north to the Tropic of Cancer and the Tropic of Capricorn respectively. These Tropics are lines marking the solstices, or periods when the sun reaches its most northerly or southerly point from the equator. The northern summer solstice occurs in June and the winter solstice in December. The Tropic of Cancer is the northern limit of the sun's passage and Capricorn the southern. They are each $23\frac{1}{2}$ degrees from the equator. Between the two Tropics lies the Torrid Zone, through the center of which the equator passes.

"Harvest Moon" refers to the period, on or about September 22 in northern areas, when the sun sets directly west and the full moon rises directly east almost at the same time. Farmers are able to continue their harvest work by the light of the full moon.

The equinoxes are the periods in each year when days and nights are almost equal in length. The spring equinox in the Northern Hemisphere occurs on March 21 and the autumn equinox on September 22.

The "heat equator" is the name given to the Tropics, where the sun's rays hit the earth nearly vertically throughout the year, producing the greatest concentration of heat on the earth's surface. Since the sun's rays hit the poles obliquely, because of the curvature of the earth, less heat is concentrated there and the regions are cold.

Because of vegetation, cloud banks and other features, the earth's surface tends to hold the heat concentrated upon it by the sun and thus cool only slowly. But where these features are lacking, as in desert areas, the land cools rapidly at

night. Consequently, although during the daytime the heat is intense, at night the cold may be equally marked.

Norway is called the "Land of the Midnight Sun" because, during the summer in Scandinavia and other far northern regions, the sun dips only slightly below the horizon for a brief period at night. In winter it rises only slightly above the horizon for a short time each day.

What we have said above about the Northern Hemisphere must be reversed when considering the Southern Hemisphere. For example, autumn is beginning in Rio de Janeiro, in South America, when spring comes to New York City, North America. The southern half of the globe is farther from the sun during the northern summer, hence receives fewer direct rays, causing winter, or a reversal of seasons.

Winds of many kinds and intensities blow over the surface of the earth. Tornadoes are sudden rushes of air setting winds in violent motion. These occur most frequently in the Mississippi Valley, particularly in Kansas, Nebraska and the regions surrounding these states. Hurricanes are large masses of wind whirling about a dead center. The "West Indian hurricanes" blow up from the Caribbean Sea and often hit the southern coastal regions of the United States through the Gulf of Mexico or directly across the Florida Strait, and swirl toward the southern and eastern states.

Typhoons are destructive whirlwind storms traveling at high speed. They occur in the western Pacific Ocean, mostly between the Philippines and Japan, during the period from August to October. Monsoons are periodic winds of India and southeastern Asia which bring rain in the summer season. The monsoon belt is in the Indian Ocean, and monsoon rains are prevalent in India during May.

The mistral is a cold north wind blowing through southern France toward the Mediterranean coast. It is a dry wind. A sirocco is a hot wind which blows from the African deserts

over the Mediterranean to southern Europe, bringing very warm, moist air.

The Northeast Trades are winds prevailing from the northeast, encountered north of the equator. Trade winds, of great value to navigators, are caused by the movement of air from high to low pressure areas, and by the rotation of the earth. Trade winds south of the equator blow from the southeast.

The doldrum belt is part of the ocean near the equator where calms, sudden squalls and baffling winds torment navigators.

Prevailing winds across the Atlantic Ocean are westerly. Thus an airplane trip from the United States to Europe is faster and easier than the return trip, since "tail winds" help to drive the plane from west to east and "head winds" impede its progress from east to west.

The Gulf Stream, an ocean current, has its source near the Gulf of Mexico and travels northward along the American coast, then across the Atlantic, near Great Britain and Scandinavia, thence to the Arctic Ocean. The stream acts as a moderator of climate, warming the cooler places as it passes. The Japanese Current is the "Gulf Stream" of the Pacific. It sweeps up from the China Sea and crosses the Pacific Ocean to become the California Current and warm the northwestern shores of America.

The Gulf Stream warms the British Isles and is the indirect cause of the intense fogs usually associated with that area. London, for example, experiences extremely thick atmospheric conditions caused by the impact of cold and warm air. "London," or "pea-soup," fogs are noted the world over.

The largest part of the rain in the United States is due to evaporation from the Gulf of Mexico—55%. The evaporation from the Pacific Ocean causes 30% of the rain, and from the Atlantic Ocean 10%. The greatest average rainfall

in the United States is 120 inches a year at Tillamook, Oregon. The states of Florida and Washington have high rainfall averages.

Mountains are the cause of southwestern United States arid regions because the rain which would otherwise reach them is deposited on the western slopes of the mountains. The rains are carried on westerly winds, but are precipitated before they can water the areas east of the peaks.

Death Valley, California, is generally reputed to be the hottest place in the United States. Many of the pioneers who first attempted to cross the valley perished because of the heat. The valley is 276 feet below sea level. At Death Valley one can stand in the lowest point of the United States and see the highest point, Mount Whitney.

POLITICAL GEOGRAPHY

The earth is naturally divided, as we have seen, by many physical factors. They remain fairly stable regardless of man's activity.

There are other divisions of the earth's surface which depend upon man, and may be changed from time to time. These are the political divisions—nations and their possessions.

In this section we will describe the political divisions of each continent in the following order: North America, South America, Europe, Asia, Australia, Africa and Antarctica. If, however, a political division of one continent influences a section of another, we shall mention the fact, but will deal with each section in its proper place. For example, we will discuss Great Britain with the continent of Europe and will note the scattered areas which make up the British Empire. But we will discuss the Dominion of Canada with North America, India with Asia, etc.

North America

North America's political divisions separate into the United States and its possessions (Alaska, the Panama



6. NORTH AMERICA

Showing Boundaries of Countries, States, and Provinces, with Principal Cities

Canal Zone, Puerto Rico and the Virgin Islands), Canada, Newfoundland and other parts of the British Empire (Barbados, British Honduras, Bermuda, Grenada, St. Vincent, St. Lucia, Leeward Islands, Bahamas, Jamaica, Cayman Islands, Turks and Caicos Islands), French possessions (Guadeloupe, Martinique, St. Pierre and Miquelon), Mexico, Costa Rica, Guatemala, Honduras, Nicaragua, Panama, Salvador, Cuba, Haiti and the Dominican Republic. Central America is part of the North American continent.

THE UNITED STATES

The United States of America lies across the middle of the North American continent from the Atlantic to the Pacific Ocean and from the Dominion of Canada on the north to Mexico and the Gulf of Mexico on the south. It consists of 48 states, two territories and a number of small outlying possessions. The capital is Washington, District of Columbia, an area taken from the states of Virginia and Maryland when the national capital was established.

The Atlantic Coast of the United States is more than twice as long as the Pacific Coast.

The population of the United States, according to the official census of 1940, is 131,669,275. With the peoples of the territories and possessions, the total rises to 150,621,231.

Originally, after America won its independence in the Revolution of 1775 to 1783, the United States consisted of thirteen states—New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina and Georgia. In 1803 the United States purchased the Louisiana Territory from France for \$15,000,000. The area included what is now Louisiana, Arkansas, Oklahoma, Kansas, Missouri, Nebraska, Iowa, North Dakota, South

Dakota, Montana and parts of Minnesota, Colorado, and Wyoming. In 1819, through a treaty with Spain, Florida and another part of Louisiana were added. Texas became a member of the United States by annexation in 1845, and in 1846 Oregon, which then included Idaho and Washington, was made part of the Union. In 1848 Mexico ceded to the United States what is now California, Nevada, Utah, Arizona and New Mexico.

The Mason-Dixon Line is the border between Pennsylvania and Maryland in the United States. The line, which came to mean the frontier between the slave and free states prior to the Civil War, was originally fixed by two English surveyors named Mason and Dixon.

The possessions of the United States were added over a period extending from 1867 to 1917. Alaska was bought from Russia in 1867 for \$7,200,000. The Hawaiian Islands were annexed in 1898, and Puerto Rico, Guam and the Philippine Islands were obtained by a treaty with Spain and the payment of \$20,000,000 in 1899, after the Spanish-American War. American Samoa was acquired by treaty in 1900. The Panama Canal Zone came under United States control through a pact with Panama by which the United States paid \$10,000,000 down and is pledged to pay \$250,000 annually for a perpetual lease. The Virgin Islands were purchased from Denmark in 1917 for \$25,000,000. Other small island possessions were added from time to time. There is also an undetermined area claimed for the United States in Antarctica by Admiral Richard E. Byrd.

States and Cities

The ten largest cities in the United States and their populations, according to the 1940 census, are:

New York	7,454,995
Chicago	3,396,808

Philadelphia	1,931,334
Detroit	1,623,452
Los Angeles	1,504,277
Cleveland	878,336
Baltimore	859,100
St. Louis	816,048
Boston	770,816
Pittsburgh	671,659

The 48 states are usually classified geographically as:

NEW ENGLAND STATES—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.

MIDDLE ATLANTIC STATES—New York, Pennsylvania, New Jersey, Delaware, Maryland, Virginia, and West Virginia.

SOUTHERN STATES—North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Louisiana, Arkansas, Oklahoma, and Texas.

CENTRAL STATES—Michigan, Wisconsin, Illinois, Indiana, Ohio, Kentucky, North Dakota, South Dakota, Minnesota, Iowa, Nebraska, Kansas, and Missouri.

NORTHWESTERN STATES—Wyoming, Montana, Idaho, Oregon, and Washington.

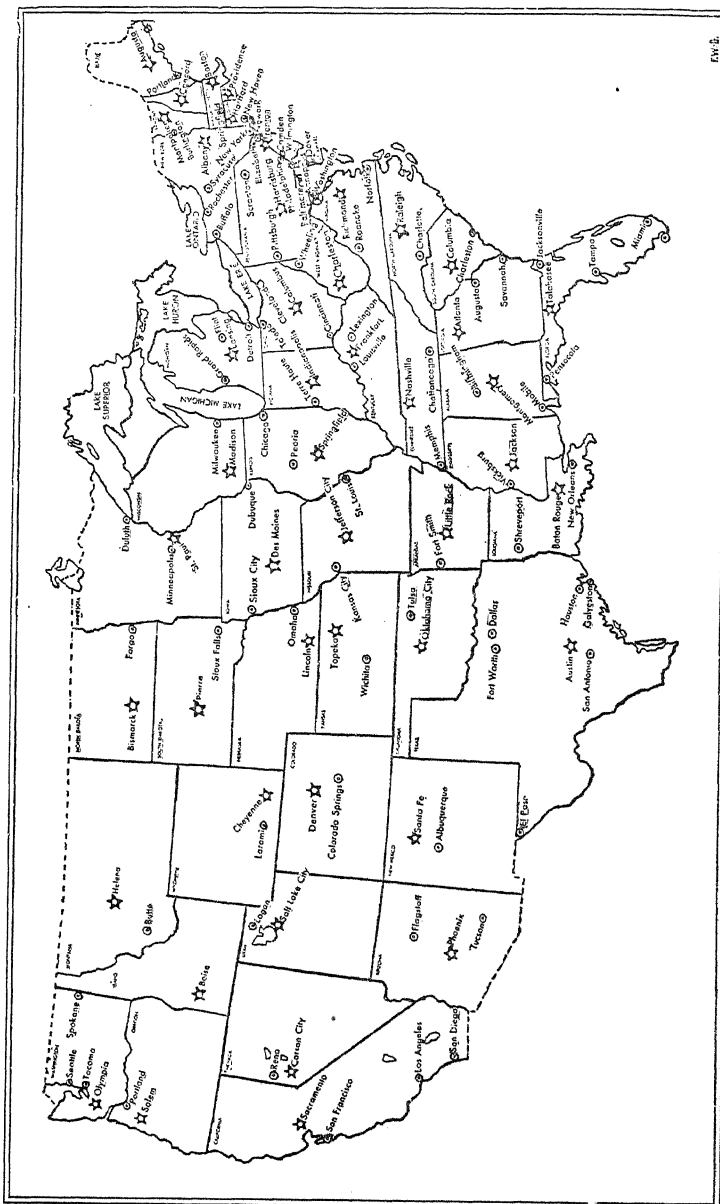
SOUTHWESTERN STATES—New Mexico, Colorado, Utah, Arizona, Nevada, and California.

Texas is the largest state, Rhode Island the smallest. The most densely populated is New York, and the most sparsely populated is Nevada. Four states are designated as commonwealths—Massachusetts, Pennsylvania, Kentucky and Virginia. The five most populous states in order of population are: New York, 13,479,142; Pennsylvania, 9,900,180; Illinois, 7,897,241; Ohio, 6,907,612, and California, 6,907,387.

The United States is a democracy.

Following are brief notes on the states and possessions.

Alabama: The capital city is Montgomery, with a population of 78,084. The total population of the state is 2,832,-



Showing State Boundaries, with Capitals and Principal Cities

961. Important cities are Birmingham, an industrial center known as the "Pittsburgh of the South," and Mobile, on the Gulf coast. The United States government dam at Muscle Shoals, on the Tennessee River, is a notable source of electric power and a manufacturing plant for nitrates.

Arizona: Its capital is Phoenix, with a population of 65,414. The state's population is 499,261. Another important city is Tucson. Two great dams furnish power for domestic and industrial use. These are Boulder Dam, the highest in the world, located in Black Canyon, on the Colorado River about 25 miles southeast of Las Vegas, Nevada, and Roosevelt Dam, an irrigation project in Salt River. Arizona has a large Indian population.

Arkansas: Little Rock is the capital, with a population of 88,039. The state contains 1,949,387 persons. Other important cities are Hot Springs, noted for its healing waters, Fort Smith and Pine Bluff. This state contains the only diamond field in the country. The largest fish hatchery in the world is located at Lonoke.

California: The capital is Sacramento, with a population of 105,958. The total population of the state is 6,907,397. Large cities are Los Angeles, the largest in area of American cities, San Francisco and Oakland. Sequoia National Park contains many giant trees, some from 20 to 30 feet in diameter. Hollywood, center of the motion-picture industry, is near Los Angeles.

Colorado: The capital is Denver, a city of 322,412 people. The total population of the state is 1,123,296. One of the United States Mints is located at Denver. Colorado Springs is noted as a health resort. The Moffat railroad tunnel, over 5 miles long, cuts through the Continental Divide to link Denver and Salt Lake City, Utah. Many evidences of prehistoric cliff-dwellers are found in the canyons of the state.

Connecticut: Hartford is the capital, with a population

of 166,267. Population of the state is 1,709,242. Three coastal centers of the state are Bridgeport, New Haven and New London, all located on Long Island Sound. There is a United States naval base at New London. Yale University is located at New Haven. The city of Waterbury is noted for the manufacture of watches, clocks and machinery.

Delaware is the next to smallest state. Its capital is Dover, with a population of 4,800, and the total population of the state is 266,505. Other important cities are Wilmington, New Castle and Milford.

District of Columbia, not a state, is a political "island" carved out of the United States to serve as the national capital. It is bounded on the north and east by Maryland, on the south by Maryland and Virginia, and on the west by Virginia, and is separated from the latter by the Potomac River. The city of Washington is co-extensive with the District and has a population of 663,091. It contains all the centers of the national government, including the national Capitol and the White House, home of the President. The District was originally 10 miles square, covering an area of 100 square miles, but in 1846, Virginia received back 30 square miles originally taken from it, leaving the District 70 square miles of territory. Many national shrines are located here.

Florida: Its capital is Tallahassee, with a population of 16,240; the population of the state is 1,897,414. Important ports are Jacksonville, Key West, Tampa and Miami. St. Augustine, on the Atlantic coast, is the oldest European settlement in the eastern United States, established in 1565. Palm Beach and Miami are noted winter resorts. Tampa is a cigar-manufacturing city.

Georgia: The capital city is Atlanta, with a population of 270,366. The state contains 3,123,723 people. Other leading cities are Savannah, Macon, Augusta and Columbus—all centers of the culture of the "Old South."

Idaho: Part of the boundary between this state and Montana is the Continental Divide. The capital city is Boise, population 26,130. The total population of the state is 524,873. The Snake River, which flows between Idaho and Oregon and Washington, has several beautiful falls, the American Falls Dam, and the famous Seven Devils Canyon along its course. Important places, other than the capital, are Idaho Falls, Lewiston and Twin Falls.

Illinois' capital is Springfield, which has a population of 75,503; the population of the state is 7,897,241. Chicago, the largest city, is one of the great commercial centers of the United States. Here are located the Chicago stockyards, one of the largest livestock markets in the world. Manufacturing cities are East St. Louis, Peoria, Joliet and Elgin. The state has the second longest railroad system in the country, 12,000 miles, and boasts the heaviest railroad tonnage in the United States.

Indiana: The southern boundary of this state is the winding Ohio River; part of its western border is the Wabash River. The capital is Indianapolis, with a population of 386,972, and the total population of the state is 3,427,796. Wyandotte Cave, in the southern part, is one of the largest in the world. Evansville, a principal city, is the largest hard-wood center in the United States. Gary is called the "Steel City." For five decades the center of population of the United States has been in Indiana, since the 1890 census. It is located now, by the 1940 census, two miles southeast by east of Carlisle, Sullivan County, Indiana.

Iowa's eastern boundary is the Mississippi River. The state is separated from Nebraska and South Dakota on the west by the Missouri and Big Sioux. The capital is Des Moines, with a population of 159,819; the whole state contains 2,538,268 people. Important cities are Davenport, Burlington, Cedar Rapids (noted for the manufacture of furniture) and Council

Bluffs. Temperatures of the state range from 47 degrees below zero in the winter in some places to 113 degrees above zero in summer.

Kansas: The capital is Topeka, with 67,833 people. The population of the state is 1,801,028. Cities include Kansas City, Wichita and Atchison. The geographical center (as distinct from population) of the United States is on the military reservation at Fort Riley, southwest of Manhattan. The Ogden Monument marks the exact center of the nation.

Kentucky: The Ohio River forms the northern border of the state, while the Mississippi flows along its western side. The capital of the state is Frankfort, with a population of 11,492. The total population of Kentucky is 2,845,627. The famous Blue Grass region is in the north. Among famous landmarks are Mammoth Cave and Colossal Cave. The state is especially noted for the breeding of fine horses. Important cities are Louisville, Covington, Lexington and Newport.

Louisiana's capital is Baton Rouge, with a population of 34,719; the population of the state is 2,363,880. The port of New Orleans, at the mouth of the Mississippi, is the scene of the annual Mardi Gras. Other important cities are Shreveport, Alexandria and Lake Charles. The southern portion is the great Mississippi Delta, through which the river flows into the Gulf of Mexico.

Maine: The Atlantic Ocean cuts deep into the coast of Maine at many places, giving it one of the most jagged shores of the entire United States, as well as fine harbors and beaches. Augusta is the capital, its population 19,360; the state has 847,226 people. The Acadia National Park, in Hancock County, has both mountain and seashore scenery. Leading cities are Portland, Lewiston, and Bangor.

Maryland: Annapolis, with a population of 13,069, is the state's capital. The total population of the state is 1,821,244. Baltimore, the largest city, is an excellent port. The United

States Naval Academy is at Annapolis. The Fort McHenry National Monument commemorates the scene of Francis Scott Key's writing of "The Star-Spangled Banner."

Massachusetts' capital is Boston, with a population of 770,816. The state's population is 4,316,721—the second most densely populated in the United States. It contains a wealth of scenic and historic interest. Cape Cod contains several artistic and literary colonies. The ports of Marblehead, Gloucester and New Bedford are highly picturesque. Around Boston are Bunker Hill, Old North Church, of Paul Revere fame, and the Charlestown Navy Yard. To the south is Plymouth Rock, on which the Pilgrims landed. Concord was the home of such literary figures as Emerson, Hawthorne and Thoreau.

Michigan is divided into two parts: the Upper and Lower Peninsulas. The Strait of Mackinac separates them. The capital of the state is Lansing, with a population of 78,753. The total population is 5,256,106. Detroit, the largest city, is the hub of the automobile industry of the United States. More than half the automobiles in the world are made there. Grand Rapids manufactures furniture. Other cities are Flint, Saginaw, Kalamazoo, Battle Creek and Ann Arbor. The state handles much shipping because of its inland maritime position on the Great Lakes.

Minnesota's capital is St. Paul. The city of St. Paul and the nearby city of Minneapolis are known as the "Twin Cities." The population of the entire state is 2,792,300. On the Canadian border is the Lake of the Woods, where the boundary between Canada and the United States starts westward along the 49th Parallel (latitude). Minnehaha Falls, near Minneapolis, is associated with Longfellow's poem "Hiawatha." Duluth is a great lake port for iron ore and grain. Small lakes, noted for their scenic beauty, dot the state. One of these, Lake Itasca, is the source of the Mississippi River.

The northernmost point in the United States is in Minnesota. The border with Canada at this point takes a sharp northward turn in the region of the Lake of the Woods, making Minnesota a few degrees farther north than Maine.

Mississippi: The capital city is Jackson, population 62,-107; the total population is 2,183,796. The state has erected levees along the Mississippi River to hold back flood waters. There are no particularly good harbors along the coastline because the Gulf of Mexico is shallow. Gulfport has an artificial harbor. The state handles a great deal of Mississippi River traffic.

Missouri's capital is Jefferson City, with a population of 24,268. The state population is 3,784,664. St. Louis and Kansas City are great railroad centers. The writer Mark Twain's boyhood home was at Hannibal. Relics of Mound Builders, early inhabitants of the area, are to be seen near St. Louis. Other important cities are St. Joseph, Springfield and Joplin. The state has 1,000 miles of navigable river waters.

Montana: The capital is Helena, with 15,056 people. The population of the state is 559,456. The western boundary with Idaho is formed largely by the Continental Divide. The state carries on extensive mining operations, and has a vast amount of water power available. Its Glacier National Park contains many small glaciers and 250 beautiful glacier-fed lakes. General Custer's "last stand" was made at Little Big Horn in 1876. Among important cities are Butte, Great Falls and Billings. The Yellowstone River flows through the southern part of the state.

Nebraska's capital, Lincoln, has a population of 81,984, and the state's is 1,315,834. The "bad lands" extend into the state for about 1,000 square miles. The stockyards at Omaha are of great value as a meat distribution center. Other

cities are Grand Island and North Platte. The northwestern part of Nebraska is sparsely settled.

Nevada: The capital is Carson City, with a population of 1,596. The entire population of the state is only 110,247. It is the most arid state in the United States, making extensive irrigation necessary. Nevada is the least densely populated state, although sixth in size. Rhode Island, the smallest, has ten times as many inhabitants. Reno, virtually the only well-known city of Nevada, draws thousands of people each year to obtain quick divorces.

New Hampshire's capital is Concord, with a population of 27,171. Population of the state is 491,524. New Hampshire granite is known widely for its quality. Portsmouth is the only port. The Great Stone Face, made famous by Nathaniel Hawthorne's story of that name, is in the White Mountains. Newport is a center for winter sports.

New Jersey: The capital, Trenton, has a population of 124,697. Population of the state is 4,160,165. Along the Hudson River are the Palisades, rock formations. Jersey City and Hoboken are important seaports adjacent to the port of New York. Other cities are Bayonne, Newark, Perth Amboy, and Carteret. Atlantic City, on the Atlantic Ocean, a famous resort, is noted for its boardwalk. Lakehurst has a great airport fitted for dirigibles. George Washington's crossing of the Delaware River took place near Trenton.

New Mexico has a large Indian and Mexican population; many of its attractions are connected with the history of these peoples. The state capital is Santa Fe, with a population of 20,325. The total population is 531,818. Santa Fe, one of the oldest cities in the United States, contains a famous artists' colony. Many natural beauty spots in the state attract tourists from all parts of the world. Two important cities are Las Vegas and Albuquerque. Great areas have been set aside as national parks and monuments and for

the Indians. Some of the largest Indian reservations in the country are located in New Mexico. Carlsbad Caverns National Park is in the southeastern part.

New York's capital is Albany, with a population of 130,577. The total population of the state, the largest in numbers in the United States, is 13,479,142. More than half of this number is in New York City, 7,454,995. Long Island, with an area of 1,376 square miles, is the largest island in the continental United States. Manhattan Island, only about 22 square miles, is the center of New York City and the concentration of one of the greatest business areas in the world. On the island is the Port of New York, the largest in the world, through which over 5,000 vessels pass annually. Here also is Wall Street, the financial hub of the world. Scattered through the state are many lakes, resort places, and places of historical importance. New York City is the leading publishing center of the world. Other cities of the state are Buffalo, Rochester, Syracuse, Utica, Troy and Schenectady. The second and third longest suspension bridges in the world are in New York State. The George Washington Bridge, spanning the Hudson River between New York City and New Jersey, is 3,500 feet long. The Bronx-Whitestone Bridge, crossing the East River from Long Island to the Bronx, in New York City, is 2,300 feet long. Hell Gate Bridge, over the East River, is the second longest steel-arch bridge, stretching for 1,017 feet.

North Carolina's capital is Raleigh, population 46,897. The state population is 3,571,623. The coastline is extremely rugged. Cape Hatteras, a stormy point, is on the Atlantic coast. Kitty Hawk National Monument, on the northern coast of the state, marks the scene of the first sustained flight made by the Wright brothers' heavier-than-air machine. Part of Virginia's Great Dismal Swamp reaches into the northeastern section of the state.

North Dakota: The "Bad Lands," west of the Missouri River, are great areas of soil erosion and furnish effects of strange beauty. The capital of the state is Bismarck, with 15,496 people. The total population is 641,935. Cities include Fargo, Grand Forks, Minot and Devils Lake.

Ohio: The capital, Columbus, contains a population of 306,087; the state's population is 6,907,612. Principal cities are Cleveland and Toledo, both on Lake Erie and handling a large volume of commerce, Cincinnati, Akron, Dayton and Youngstown. The state has extensive manufacturing and is one of the commercial centers of the country.

Oklahoma's capital is Oklahoma City, with a population of 204,424, and the population of the state is 2,226,434. Tulsa is known as the oil capital of the United States. Because of the vast amount of oil found in the state, many Indians who once held only homestead land have become immensely wealthy. The state was opened for settlement by white people at noon on April 22, 1889. As the time approached more than 20,000 people gathered on the border to begin a rush for land. Previously the territory had been reserved for Indians. Leading cities of the state are Muskogee, Enid, Ardmore and McAlester.

Oregon: The capital is Salem. It has a population of 30,908; the state population is 1,089,684. Two large Indian reservations, Warm Springs and Klamath, are located in the state. Oregon has more standing timber than any other state. Portland is the chief commercial city, its port accessible to the Pacific Ocean through the Columbia River, which is navigable many miles inland. Crater Lake National Park, containing a lovely lake in the crater of an extinct volcano with sides 1,000 feet high, is in the southern part of the state. Cities include Oregon City, Corvallis and Astoria.

Pennsylvania: Harrisburg, with a population of 83,893, is the capital. The population of the state is 9,900,180. Penn-

sylvania contains the only extensive anthracite coal field in the United States. Pittsburgh, an important inland port on the Ohio River, is one of the leading manufacturing centers of the country. Much of the nation's steel comes from the Pittsburgh area. Philadelphia, political center of the American Revolution, is the location of Independence Hall and the Liberty Bell. Many popular summer resorts are scattered through the mountains of the state. Other important cities are Scranton, Erie, Allentown and Wilkes-Barre.

Rhode Island: This is the smallest state in area in the United States, covering only 1,248 square miles. It is deeply indented by Narragansett Bay, an arm of the Atlantic Ocean. The capital is Providence, with a population of 254,504, an excellent port serving as the distributing center for barge-shipped gasoline for all of New England. The population of the state is 713,346. Newport is a famous resort. Important cities are Pawtucket and East Providence.

South Carolina's capital city is Columbia, population 62,396. The total population is 1,899,804. Charleston, a port on the Atlantic Ocean, handles some foreign trade. Important centers in the state are Georgetown, Greenville and Chester.

South Dakota: The state's capital is Pierre, with 4,322 people. The total population is only 642,961. The "Bad Lands," in the southwest, are full of interesting fossil deposits. One of the chief interests of the state is gold mining, the Homestake Mine alone having produced more than \$200,000,000 worth of the metal. Gutzon Borglum's memorial sculpture of American history is located at Mount Rushmore. Many Indian reservations are located in the state, including Rosebud, Pine Ridge and Cheyenne River. Important cities are Sioux Falls, Lead and Aberdeen.

Tennessee: Nashville, with a population of 167,402, is the capital city. The total population is 2,915,841. Other cities

are Memphis, a port on the Mississippi River, Knoxville, Chattanooga and Jackson.

Texas is the largest state in the United States, covering 265,896 square miles. Austin, with a population of 87,930, is the capital. The state population is 6,414,824. Texas is second only to New York in its exports, sending out raw cotton and petroleum products, in which it abounds. Galveston is the chief port, Houston the second. San Antonio, one of the historic cities, was the site of the famous Alamo. Texas was an independent nation before it joined the United States in December, 1845. El Paso is the gateway to Mexico. Other important cities are Dallas, Fort Worth, Beaumont, Wichita Falls and Port Arthur. Giant oil fields and large cattle ranches dot the state. The King Ranch alone extends over 1,000,000 acres.

Utah's capital is Salt Lake City, population 145,934. The population of the state is 550,310. Great Salt Lake lies in the northern part. It is about six times as salty as the ocean, with the result that one cannot sink even if he tries. The famous Mormon Temple is situated at Salt Lake City. The state has many tourist havens. Important points are Ogden, Provo and Logan. The Mormon influence is strong, these people having had much to do with the development of an area which, to many, seemed next to impossible of settlement. The great Navajo Indian Reservation is located in Utah, though it extends partly into Arizona.

Vermont: The capital is Montpelier, with 8,006 people. The population of the state is 359,231. Vermont leads the nation in the production of maple sugar and syrup, and contains extensive marble quarries. Cities are Burlington, Rutland and Barre.

Virginia: Richmond is the capital, with a population of 193,042. The state's population is 2,677,773. The Atlantic Ocean cuts deep into the state, forming several wide estu-

aries which receive the rivers. Most famous of these is the James River, which becomes Hampton Roads as it approaches the ocean. In the southeast is the Great Dismal Swamp. Norfolk and Newport News are the chief ports and shipbuilding centers, with a considerable amount of foreign trade. Mount Vernon, home of George Washington and the site of his tomb, is in the state. Important cities are Roanoke, Portsmouth and Lynchburg. The state contains many places of historical interest and beautiful landscapes.

Washington's capital is Olympia, with a population of 13,254; the total population is 1,736,191. The Pacific Ocean, indenting the northwestern coast, forms Puget Sound and many excellent harbors. Seattle and Tacoma are principal ports. Cascade Tunnel, through the Cascade Mountains, is eight miles long. Chief cities are Spokane, Everett, Aberdeen and Walla Walla. The last was a center of activity during gold-rush days.

West Virginia: The capital city, Charleston, has a population of 67,914. The population of the state is 1,901,974. West Virginia is called the "Panhandle" state because of its shape. Leading cities are Huntington, Wheeling, Clarksburg and Morgantown. Many mountain resorts are scattered through the state. Harper's Ferry of John Brown fame is located in West Virginia, 55 miles northwest of Washington, D.C.

Wisconsin: The capital is Madison, with 67,447 people. The state population is 3,137,587. Chief cities are Superior, Ashland, Milwaukee and Green Bay. The state abounds in scenic inland lake resorts. Several Indian reservations are situated in the north.

Wyoming: The capital city is Cheyenne, with a population of 22,474. Total population of the state is 250,742. Wyoming pioneered in woman suffrage, giving the vote to women in 1869. Yellowstone National Park is in the north-

western corner of the state. Here, and in the mountains which cover the state, are untold numbers of scenic attractions which make Wyoming a tourist's mecca. Leading cities are Casper, Laramie and Rock Springs.

Territories and Possessions

Alaska, a territory of the United States, is located on the northwestern peninsular tip of the North American continent. It is bounded on the north by the Arctic Ocean and the Beaufort Sea, on the east by the Dominion of Canada, on the south by the Gulf of Alaska and the Pacific Ocean, and on the west by the Bering Sea, Bering Strait, and the Arctic Ocean. The area, originally called Russian America, was purchased from Russia in March, 1867, for \$7,200,000. The value has been such that its purchase price has been repaid many times over. The capital is Juneau, located in the region which lies along the Pacific Coast, south of the main body of the territory. The population of Alaska is 75,524, about one-half being of the white race. The Yukon River flows through Alaska from Canada to the Bering Sea. The country abounds in fur-bearing game and fish, and trapping is one of the chief industries. Important cities are Nome, Fairbanks, Anchorage, Sitka and Ketchikan. Point Barrow, jutting up into the Arctic Ocean, is the northernmost point of Alaska.

Hawaii, another territory, is a group of islands in the Pacific Ocean, inhabited by a mixed population of natives, Americans, Portuguese, Filipinos, Chinese, Japanese and others. The population is 433,330. Only a few of the islands are inhabited, the others being small coral formations. The inhabited islands are Hawaii, Maui, Molokai, Lanai, Kahoolawe, Oahu, Kauai and Niihau. Capital of the group is Honolulu, on Oahu Island. The total area of the islands is 6,406 square miles. More than 10,000,000 birds appear on

them annually. The tropical vegetation is extraordinary. The plant life includes some 900 species of flowering plants and 140 ferns. There are many forms of animal life, but the only native mammal is the bat. Others have been introduced from the outside. The Hawaiian language is very musical; it has only 12 letters and 40 syllables, making only about 20,000 words. The islands were taken over by the United States by annexation in 1898 and made into a territory in 1900. They are often called the "Paradise of the Pacific" because of the tropical climate and rich vegetation, and tourists from all parts of the world have visited them.

The Philippine Islands, a Pacific archipelago stretching from southeastern Asia to the Dutch East Indies, contain 31 islands larger than 100 square miles in area and about 7,000 smaller islands. Many of the smaller ones have not even been named, being little more than coral reefs. The 11 largest islands are Luzon, Mindanao, Samar, Negros, Palawan, Panay, Mindoro, Leyte, Cebu, Bohol and Masbate. The capital city of the islands is Manila, on Luzon, the total population of the islands 16,356,000, about 85% Filipinos. Originally under Spanish rule, the Philippines came under the military control of the United States in 1898. Congress has passed legislation to give the islands their independence. Igorots are native tribesmen of the Philippines.

In addition to Hawaii and the Philippines, the United States possesses several islands scattered through the Pacific Ocean. *Guam*, located in the North Pacific, about 1,500 miles east of Manila, was set up as a naval station governed by an officer appointed by the President of the United States. Its capital is Agana. The population of the island is 22,290. Guam was ceded to the United States by Spain in 1898. *American Samoa* is a group of small islands about half-way between the American continent and the Philippines, but considerably to the south of the direct route; on the island of

Tutuila is the harbor town Pago Pago; the population of this group of islands is 12,908. *Wake Island* is a sparsely inhabited atoll midway between Guam and Hawaii. The United States took possession of it in 1899.

Puerto Rico is the furthest east of the islands known as the Greater Antilles, in the West Indies. It is separated from the island of Haiti by the Mona Passage. The capital is San Juan, on the northeastern coast. The island has a population of 1,869,255, about 75% white. It was ceded to the United States by Spain after the Spanish-American War of 1898. In 1917 the people were given full American citizenship. The governor of the islands is appointed by the President of the United States.

The Virgin Islands, the furthest west of the Lesser Antilles, curve south from Puerto Rico. Only some of these islands belong to the United States, others being part of the British Empire. There are three large islands—St. Croix, St. Thomas, and St. John—which the United States bought from Denmark in 1917 for \$25,000,000. Two others—Culebra and Vieques—were ceded to the United States by Spain in 1898. The population of the United States' islands is 24,889, mostly Negro. St. Thomas is the capital. The islands are administered by the Navy Department and the inhabitants, most of whom speak English, were made citizens of the United States in 1927.

The Canal Zone, a strip of land 10 miles wide across the Isthmus of Panama, was acquired by the United States from the Republic of Panama under a lease agreement. The United States paid the Republic of Panama \$10,000,000 when the property was taken over and must pay \$250,000 annually for a perpetual lease. Later the United States paid the Republic of Colombia \$25,000,000 to settle its claim on the land. The official status of the Canal Zone is a military reservation administered by the War Department through

an army officer, who is resident governor. The population of the zone is 51,827. The Panama Canal runs through this strip of land, which is well fortified and serves as one of the vital traffic lanes between the Atlantic and Pacific.

In addition to the possessions mentioned, the United States has a number of small islands in the Atlantic Ocean and Caribbean Sea. Most of these are little more than lighthouse stations.

THE DOMINION OF CANADA

The Dominion of Canada includes all the North American continent north of the United States except Alaska, Newfoundland and Labrador. Canada is divided into nine provinces—Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia, Ontario, Quebec, Prince Edward Island and Saskatchewan—the Territory of Yukon, and the Northwest Territories, consisting of Keewatin, Franklin, and Mackenzie. Nova Scotia, New Brunswick and Prince Edward Island are known as the “Maritime Provinces.” The capital of the Dominion is Ottawa, situated in the Province of Ontario. The population of the Dominion is 11,420,000.

Canada is a federation of provinces, each having its own government. However, the federation is a part of the British Empire and a Governor-General is appointed by the King of England. More than 80% of the people are of British or French origin, less than 25% being French. The rest of the population is made up of Indians and Eskimos.

Alberta is bounded on the north by the Mackenzie district, on the east by Saskatchewan, on the south by the United States, and on the west by British Columbia. Its capital is Edmonton. The population of the province is 731,605. It is one of the prairie provinces. Medicine Hat, a city in southern Alberta, is the legendary source of weather. The

city probably achieved this distinction because it is on the route of winter storms that sweep down on the United States from Canada.

British Columbia is a Pacific Coast province. The capital is Victoria, a port. The population of the province is 694,263. It includes Vancouver and Queen Charlotte Islands.

Manitoba, bounded on the east by Hudson Bay and Ontario, has Winnipeg as its capital. The population of the province is 700,139.

New Brunswick, on the Gulf of St. Lawrence, is bounded on the south by the Bay of Fundy, and on the west by the United States. Its capital city is Fredericton, the population of the province 408,219.

Nova Scotia is on the Atlantic coast, with the Bay of Fundy and New Brunswick to its west. Its capital city is Halifax. The province contains 512,846 people.

Acadia was the French name for Nova Scotia. The Acadians were French colonists. The name was dropped about 1713.

Ontario lies across the northern rim of the Great Lakes, in east-central Canada. Lake Ontario, Lake Superior, Lake Erie, Lake Huron and the United States form Ontario's southern boundary. Its capital is Toronto, and the province's population is 3,431,683.

Prince Edward Island is south of the Gulf of St. Lawrence, on the east coast of Canada. Charlottetown is the capital of the province of 88,038 people.

Quebec, due north of the American New England States, is the largest in area of the Canadian provinces, covering approximately 594,434 square miles. The city of Quebec is the capital, the province containing 2,874,295 people.

Saskatchewan is south of Mackenzie, in the western part of the Dominion. Its capital is Regina. In the province live 924,785 persons.

Yukon, a territory, is just east of Alaska. Dawson is the capital of the territory, in which live 4,000 people. Here Mount Logan, the highest peak in Canada, and the famous Klondike gold fields, are in the Yukon. It is administered with the Northwest Territories.

The Northwest Territories include all of Canada east of the Rocky Mountains, north of the 60th Parallel and west of Hudson Bay, an area of 1,242,224 square miles. All the many islands of the north are in these territories. Districts within them include Mackenzie, Keewatin, and Franklin. Much of the land has never been explored by white men. The region contains a population of only 9,700—Indians and Eskimos.

NEWFOUNDLAND

Newfoundland is a large island separated from eastern Canada by the Gulf of St. Lawrence and the Strait of Belle Isle. It is a British dominion in itself and includes *Labrador*, part of a peninsula extending into the Atlantic Ocean. Although most of the peninsula is within Quebec Province, a part of it is included in the Dominion of Newfoundland. The capital of the dominion is St. Johns. The population of Newfoundland is 294,800 and that of Labrador 4,716. Newfoundland was one of the first places settled by the British, having been founded in 1583.

Two islands to the south of Newfoundland, St. Pierre and Miquelon, belong to France.

MEXICO

Mexico is a federation of 28 states, two territories, and a federal district, lying south of the western United States. It extends into Central America, bordering on British Honduras and Guatemala. It includes, in the east, the peninsula of Yucatán, and, in the west, the peninsula of Lower Cali-

fornia. On the east are the Gulf of Mexico and the Bay of Campeche, which is in the bowl formed by Mexico proper and the Yucatán Peninsula. On the west is the Pacific Ocean. The capital of the federation is Mexico City. The population is 19,478,791. Of this number, more than 4,000,000 are Indians, 9,000,000 are of mixed races, 1,500,000 are whites, and some 250,000 are foreigners.

The government of Mexico is a republic, the president being elected by the people under a constitution. The language is basically Spanish. However, other languages, mostly Indian dialects, are also spoken.

Large sections of the country are undeveloped, and rich natural resources make the land potentially valuable. Foreign exploitation has been pushed; as the country has progressed, its people have taken over the development of these resources for their own profit and advancement.

CENTRAL AMERICA

The region known as Central America is not a political entity but rather an area between the Atlantic and Pacific oceans reaching from Mexico to South America, including the independent countries of Guatemala, Honduras, Salvador, Nicaragua, Costa Rica and Panama, and the British possession of British Honduras.

Costa Rica is bounded on the north by Nicaragua, on the east by the Caribbean Sea and on the south by Panama. Its capital is San Jose and its population about 616,000. The country is a republic. Its chief executive is a president elected by the people. Spanish is the official language.

Guatemala lies just south of Mexico. It is the largest of the Central American republics in population, having 3,284,000 inhabitants. It is the second largest in area, covering 45,452 square miles. Its capital is Guatemala City, and it is

governed under a constitution which provides for an elected president. The common language is Spanish. The country contains many ruins of the ancient Mayan civilization.

Honduras is southeast of Guatemala. The capital of Honduras is Tegucigalpa. The population of 1,105,504 is chiefly Indian with an admixture of Spanish blood. Their language is Spanish. The republic is governed by a president elected for six years. The mineral resources of the country, believed to be extensive, are little developed.

Nicaragua lies to the south of Honduras, with Costa Rica along its southern border. Lake Nicaragua, the largest lake in Central America, is in the southwestern section of the country. The capital is Managua, and the population is put at 1,380,287. The government, a republic, is headed by a president elected to serve eight years. The language is Spanish, although English is taught in all schools and is a required subject. The United States Government, in 1916, took a 99-year option to build a canal across the country, paying \$3,000,000 for the option.

Panama is located along the narrow strip connecting Central and South America. The eastern border is South America (Colombia), while to the west lies Costa Rica. The Republic of Panama elects a president for six years. The population, numbering 467,459, includes about 86,000 Negroes, 52,000 whites, 34,000 Indians, 3,000 Orientals and the remainder of mixed races. The official language is Spanish. Much of the land is undeveloped, approximately five-eighths being unoccupied.

Salvador lies along the Pacific Ocean with Honduras as its northeastern neighbor and Guatemala on the northwest. Its capital is San Salvador. The population, 1,744,535, is mostly Indian. Salvador is a one-crop country, its chief crop being coffee, which it exports largely to the United States. The country is a republic, with a president elected for four years.

The language is Spanish. Its resources are largely undeveloped.

British Honduras is in the northeastern part of Central America. Its capital city is Belize, with a population of 16,687. The total population is 58,759. British Honduras is a crown colony.

BRITISH ISLAND POSSESSIONS

A number of islands and island groups in the West Indies belong to the British Empire. *The Bahamas*, an archipelago stretching north and northeast of Cuba, consist of 29 islands, 661 keys and 2,387 rock formations. The capital of this group is Nassau, on New Providence Island. The total population is estimated at 68,903. *The Bermudas* are some 300 islands, 19 inhabited, in the Atlantic Ocean 580 miles east of the North Carolina coast. The capital is Hamilton, the population 31,661. The islands have no rivers or sources of fresh water other than rains. Rain water is stored and the remaining necessary amount is shipped in. The islands draw their chief income from tourists. *Barbados*, one of the Lesser Antilles, is the most eastern of the Windward Islands. Its capital is Bridgetown, the total population 195,548. *Jamaica*, off the eastern end of Cuba, is the largest and most valuable of the British West Indies. Attached to the island for administrative purposes are the *Turks, Caicos* and *Cayman Islands*. The capital city of Jamaica is Kingston; the island population is 1,173,645, of which three-fourths are black and less than 2% white. Jamaica figured prominently in the history of the buccaneers of the West Indies.

The Leeward and Windward Islands are a long reach of small islands stretching south and east from Puerto Rico toward the coast of South America. The Leeward group, the northern islands, comprise the islands of Antigua, Barbuda,

Redonda, St. Christopher, Nevis, Anguilla, Dominica, Montserrat, Sombbrero and the British Virgin Islands. The capital, St. John, is on Antigua, and the population of the whole group is 93,130. The Windwards reach south from the Leeward group. They include Grenada and the Grenadines, St. Vincent and St. Lucia. Each has its own government with separate governors appointed by the British crown. The capitals and populations are: Grenada: St. George's, 90,085; St. Vincent: Kingstown, 47,961; St. Lucia: Castries, 69,737.

CUBA

Cuba, the largest island of the West Indies, lies south of Florida. It is known as the "Pearl of the Antilles." Havana, its capital city, has one of the finest harbors in the world. The population of the island, approximately 4,228,000, is about 68% native white. The island became a republic in 1902, with a president elected for a term of four years. The language is Spanish, although English is widely used.

HAITI

The Republic of Haiti, known also as the "Black Republic," occupies the western third of the island of Hispaniola (or Haiti) in the Greater Antilles. It lies between Cuba and Puerto Rico. The Haitian capital is Port-au-Prince, on the Gulf of Gonaives. The population, estimated at 3,000,000, is largely Negro, with less than 2,000 white foreigners. French is the official language, although the majority of the natives speak a dialect known as French Creole. The president is elected for a six-year period.

DOMINICAN REPUBLIC

The Dominican Republic occupies the other two-thirds of the Island of Haiti. Its capital is Ciudad Trujillo, on the

southern coast. The population, placed at 1,616,561, is mixed European, African and Indian blood. Spanish is the predominant language. The president of the republic is elected every four years. An official of the United States supervises the customs.

FRENCH AMERICA

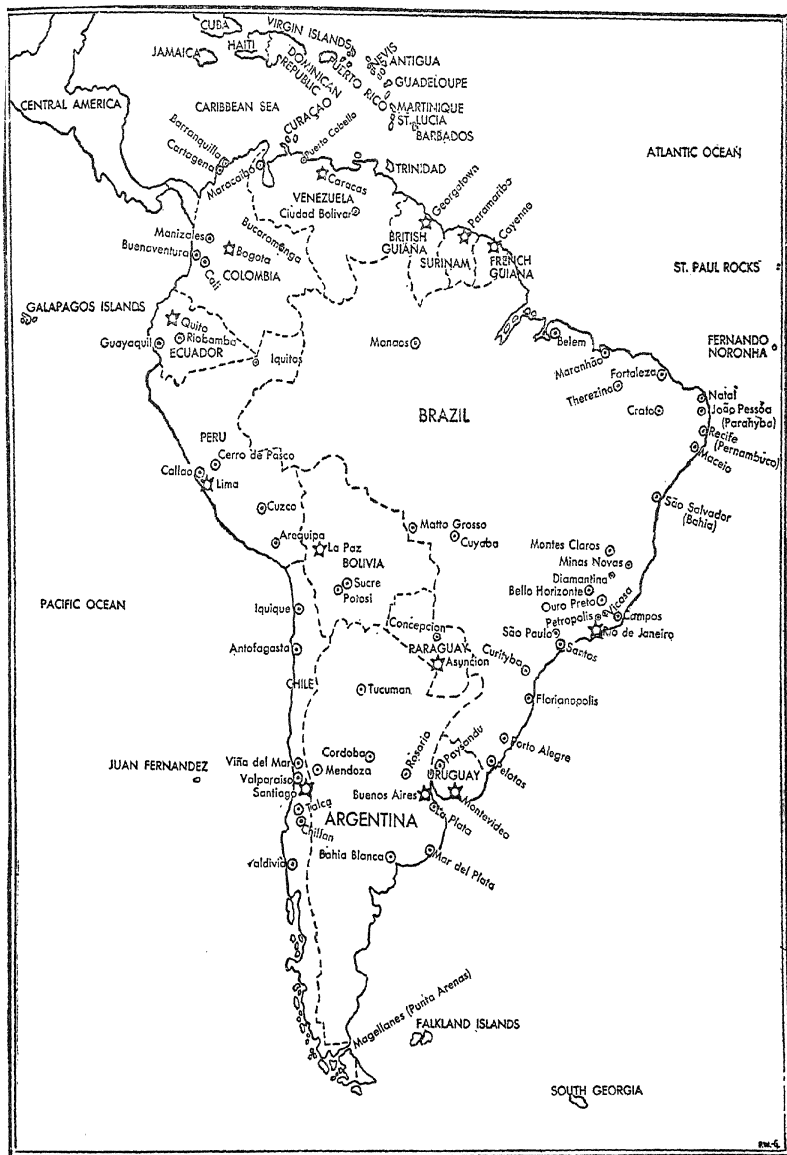
France has possessions in North America. The two islands, *St. Pierre* and *Miquelon*, just south of Newfoundland, have a total population of 3,916, mostly fishermen. The capital of the islands is St. Pierre. *Guadeloupe*, consisting of two large islands—Basse-Terre and Grande-Terre—and five smaller islands, lies in the Windward group of the West Indies between Antigua and Dominica. Basse-Terre is the capital, the population approximately 304,209. *Martinique*, one of the Windward Islands, is the site of a famous volcano, Mt. Pelée. The capital is Fort-de-France, and the population is 246,712. The island was the birthplace of Napoleon's Empress Josephine.

GREENLAND

The island of Greenland lies between the North Atlantic and the Arctic oceans, and is separated from the North American continent by Davis Strait and Baffin Bay. It is the only colony of Denmark. The population, estimated at 18,000, is composed of 16,222 natives and 408 Danes. The capital is Godthaab, with a population of 1,313. The United States relinquished claim to the island when it purchased the Virgin Islands from Denmark in 1916.

South America

South America, politically, consists of 10 independent republics, three foreign colonies and several islands, near



8. SOUTH AMERICA

Showing Boundaries of Countries, with Capitals and Principal Cities

the continental coastline, belonging to the Dutch and British. The independent republics are: Argentina, Brazil, Chile (the "ABC countries"), Uruguay, Paraguay, Bolivia, Peru, Ecuador, Colombia and Venezuela. The colonies are British Guiana, French Guiana and Dutch Guiana. The principal islands include Curaçao and some near-by small islands, Trinidad, Tobago and the Falkland Islands.

ARGENTINA

Argentina, in southeastern South America, extends all the way from Bolivia south for 2,300 miles to Cape Horn. It is bounded on the north by Bolivia, Paraguay, Brazil and Uruguay, on the east by Paraguay, Brazil, Uruguay and the Atlantic Ocean, on the south by Chile and Drake Strait, and on the west by Chile. Its capital is Buenos Aires, the largest city in South America, with a population of 2,470,000. Here is located the largest refrigerating plant in the world. The total population of the country is 13,318,320. The people are largely of Spanish and Italian origin, with a mixture of Indian and European stocks. The prevailing language is Spanish. Argentina is a republic with a president elected for a six-year period.

BOLIVIA

Bolivia is north of Argentina. Its capital is La Paz, a town of great charm situated in the heart of a gigantic canyon 3 miles wide, 10 miles long and approximately 1,500 feet deep. It is the site of a cathedral in which 12,000 people may worship at one time. The population of Bolivia, 3,426,296, is more than 50% Indians who speak their own dialect, and 25% mixed bloods. The white population, about 13%, is of Spanish descent. The official language is Spanish. The

government is a republic with a president elected for four years. In Lake Titicaca are the Islands of the Sun and the Moon, famous in Inca legends. Virtually all of Bolivia is thousands of feet up in the Andes. The country is noted for its production of tin and gold, more than 15% of the world's tin being mined there.

BRAZIL

Brazil is the largest nation in South America, and exceeds the continental United States in size by approximately 250,000 square miles. It is bounded on the north by Venezuela and British, French, and Dutch Guianas, on the east by the Atlantic Ocean, on the south by Uruguay, Argentina, and Paraguay, and on the west by Bolivia, Peru and Colombia. Rio de Janeiro is the capital. The population of the country is 41,356,605. About 29,000,000 are natives, the remainder Portuguese, Spanish, Italian, German, Japanese and other foreign nationalities. The government is that of a federated republic, with the country often referred to as "The United States of Brazil." A president is elected for a period of four years. The language and traditions of the people are Portuguese. There are 20 states in Brazil with limited autonomy, one territory, Acre, bought from Bolivia in 1902, and a federal district. The Amazon River flows through northern Brazil.

CHILE

Chile is a long, narrow country extending south from Peru to the tip of South America, a distance of more than 2,600 miles. It is bounded on the east by Bolivia and Argentina, and on the west by the Pacific Ocean. Two islands, Easter Island, some 2,000 miles west of Chile, and the two Juan Fernandez Islands, less than 500 miles west, are national

parks belonging to the Chilean government. The Chilean capital is Santiago, on the Pacific coast. Chile has a population estimated at 5,000,782. Almost all of the people are of European origin; however, there are approximately 30,000 natives, Araucans, in the Andes Mountains and an indeterminate number of nomadic fuegians in Tierra del Fuego, the island at the tip of South America. The language of Chile is Spanish. The government is a republic with a president elected for six years. Chile produces about 70% of the world's supply of iodine and about 95% of the world's nitrate.

COLOMBIA

Colombia is in the extreme northwest corner of South America, with the Caribbean Sea to its north and the Pacific to the west. Its capital city is Bogota, situated in the Andes 8,660 feet high. To reach it by water or rail from the coast requires days of travel but daily plane service brings it within 2½ hours. The population of the country is 9,334,392, consisting of 105,807 Indians, and the remainder whites and half-breeds. Spanish is spoken by most of the people. The republic elects a president every four years.

ECUADOR

The Republic of Ecuador is bounded on the north by Colombia, on the east and south by Peru, and on the west by Peru and the Atlantic Ocean. Its capital is Quito, high in the mountains. The city is one of narrow streets with houses perched on the sides of the mountains. It was once the capital of the empire ruled by the Incas, and holds valuable art treasures. The population, numbering some 3,200,000, includes 600,000 Europeans. The language is Spanish. Guayaquil, the chief port, is called the "Pearl of the Pacific."

From here a railroad runs inland to the capital. The people elect a president for a four-year term. The Galapagos Islands (Colon Archipelago), 500 miles west of the mainland in the Pacific Ocean, belong to Ecuador. These islands were visited by Charles Darwin, who secured important data for his *The Origin of Species*.

PARAGUAY

Paraguay is one of the inland republics of South America. It is bounded by Bolivia, Brazil and Argentina. Its capital is Asuncion, reached by regular steamer service from Buenos Aires up the Parana-Paraguay rivers. The population is about 1,000,000. Of this number 20,000 are aborigines, while the large majority are white. Many native tribes roam the dense forests. The government is a republic with a president elected for five years. More than 60 colonies of various foreign people engaged in agriculture and stock raising dot the country. Spanish is the chief language.

PERU

Peru is between Ecuador and Colombia on the north and Chile is on the south. Its capital, Lima, with a population of 500,000, is called the "City of the Kings." It is the most important commercial center in the country. Two other cities of importance are Callao, the chief seaport, with a population of 80,000, and Arequipa, with 75,000.

Culturally, Peru is the oldest of the South American nations. For centuries it was the leading power on the continent, dating back to the era when it was the center of the great Inca Empire. During the Spanish period of its history, Peru was the leading viceroyalty of Spain in the New World.

In the early days of the country, slavery produced great

wealth in gold and silver; the land became one of treasured romance and legend. The Incas, "people of the sun," settled in the valley of Cuzco in the 13th century and built a fabulous empire. The Spanish invaded the country, conquered the Incas and confiscated their wealth.

Peru's people elect a president every six years. The population, about 7,000,000, is predominantly Indian. About 10% is white and of Spanish descent, 60% Indian and the rest half-breed. Spanish is the official language, but many of the Indians speak Quechua or Aymara.

URUGUAY

Uruguay, the smallest South American nation, is south of Brazil and east of Argentina. Its president is elected by the people for a four-year term. The capital city is Montevideo, the total population of the country 2,146,545. The larger percentage are of Italian and Spanish descent. There are also Brazilians, Argentines and French in the population. The language is Spanish.

VENEZUELA

Venezuela, the northernmost nation of South America, lies along the Caribbean Sea. Its name, meaning "little Venice," arose from the fact that an Indian village on the coast was built on piles resembling the construction of Venice, Italy. There are 72 islands off the coast which belong to Venezuela. The largest of these, Margarita, is the center of a thriving pearl industry.

The Venezuelan capital, Caracas, has an estimated population of 300,000. The country's president is elected by the congress for a five-year term. The population is put at 3,491,159; Spanish is the language. Oil resources of Venezuela are exceedingly rich.

BRITISH GUIANA

British Guiana, a small colony in northern South America, is bounded on the north by the Atlantic Ocean, on the south by Brazil. Its capital city, Georgetown, is situated on the coast. The population of the colony is 341,237. Some 120,000 are Negroes, 124,000 East Indians, 12,000 Portuguese, and 4,300 Europeans. It is a crown colony administered by a governor and a small, elected legislative body.

SURINAM

Surinam (Dutch Guiana) is between French Guiana and British Guiana. Paramaribo is the capital. The population is estimated at 177,980. The land is a possession of the Netherlands government, having been given to the Dutch by the English in exchange for New Netherlands (New York) by treaty agreement in 1667.

FRENCH GUIANA

French Guiana's capital is Cayenne. The population of the colony is 37,005. A governor and a council general of 16 elected members administer its affairs.

A small island near the coast of French Guiana, governed as part of the colony, is Devil's Island, the French penal camp. Several other small islands are also part of the colony.

SOUTH AMERICAN ISLANDS

There are several important islands off South America which belong to countries other than those of the continent. *Trinidad* and *Tobago* are off the northern coast of South America, the most southerly of the West Indies. Trinidad has a population of 473,455 and Tobago 25,358. The capital

of both islands is Port au Spain, on Trinidad. The islands belong to the British Empire and are administered by a governor appointed by the British crown.

The *Falkland Islands*, 300 miles east of the Strait of Magellan, at the southern tip of South America, consist of two islands, West and East Falkland. For administrative purposes several others are included. These are *South Georgia*, far to the east, the *South Shetland Islands* and the *South Orkneys*. All belong to the British Empire. They are administered from Stanley, the capital on East Falkland. The population of the Falklands is placed at 3,203, South Georgia at about 705 and the South Shetland Islands and South Orkneys at 3,000.

Curaçao, in a group of six islands off the coast of Venezuela, in the Caribbean Sea, belongs to the Netherlands. The capital of the group is Willemstad, on Curaçao. Other islands are Aruba, Buen Ayre, St. Eustatius, Saba and part of St. Martin. The total population of all the islands is 101,021. The harbor of Curaçao is important, the island being a center for the refining of oil from Venezuela.

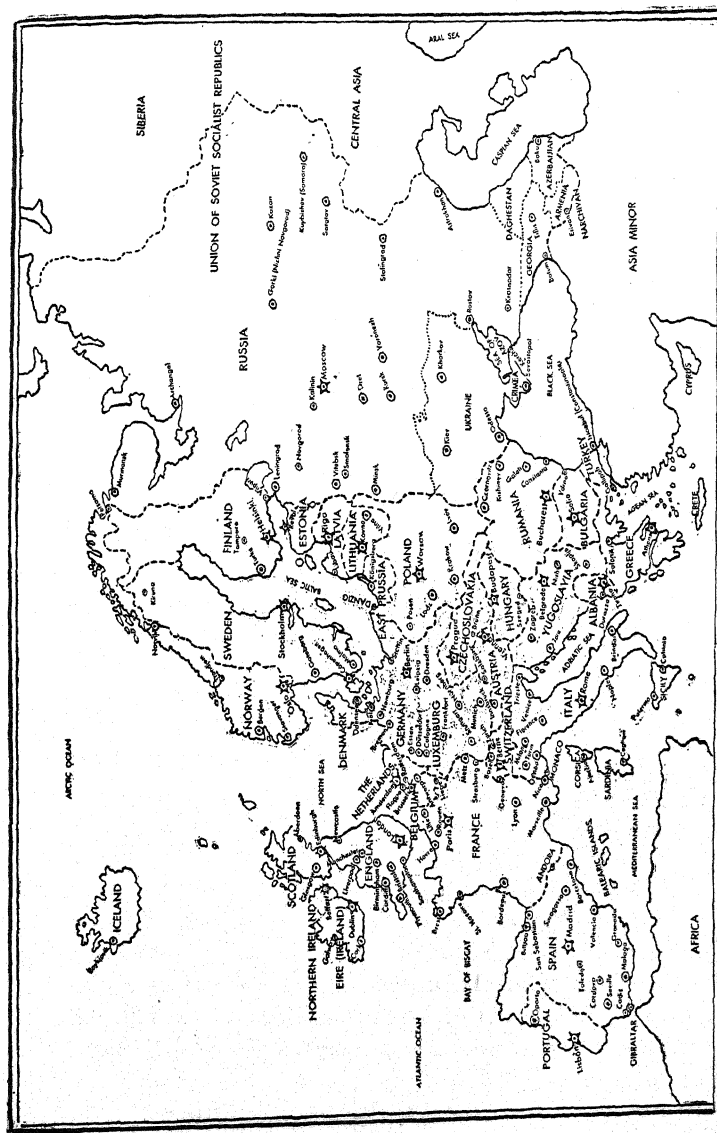
Europe

PORTUGAL

Portugal is on the west coast of the Iberian Peninsula, bounded on the north and east by Spain, on the south and west by the Atlantic Ocean. The capital city is Lisbon, a port of considerable importance. The population is 7,460,195 and the language of the people is Portuguese, as distinct from Spanish.

Portugal became a republic in 1910 when King Manoel II was driven from the throne by a revolution. Its president is elected for a period of seven years.

The *Azores* and the *Madeira Islands*, in the North At-



Showing Boundaries of Countries, with Capitals and Principal Cities

lantic, are politically an integral part of Portugal. The Azores contain 232,012 people, the Madeiras 211,610.

Portugal has colonies scattered throughout the world. In Africa are *Mozambique* (also called Portuguese East Africa), *Angola* (called Portuguese West Africa), *Kabinda*, *Portuguese Guinea*, *St. Thomas* and *Principe*, islands in the Gulf of Guinea, and the *Cape Verde Islands* in the Atlantic Ocean. In Asia are *Portuguese India*, *Macao* and *Portuguese Timor*.

SPAIN

Spain occupies the major portion of the Iberian Peninsula. To the north are the Bay of Biscay and France, to the east and south the Mediterranean Sea. The southernmost tip of the peninsula, however, belongs to the British Empire and contains Gibraltar.

The capital of Spain is Madrid. The country has a population of about 26,000,000.

The *Balearic Islands*, stretching east and north from the Spanish mainland into the Mediterranean Sea, are a province of Spain. The capital of the island group is Palma, situated on the largest island, Majorca. The population of the four islands constituting the group is 368,173. Another province is the *Canary Islands*, in the Atlantic Ocean south of Madeira and west of North Africa. These islands have a population of 564,873. *Ceuta*, a fortified post in Africa opposite Gibraltar, with a population of 39,510, is a part of the southern province of Spain, Cadiz.

The government of Spain at present is a Fascist dictatorship in which the "Leader" (Caudillo) holds the offices of Chief of State, Commander-in-Chief of the Army, Prime Minister, Minister of Interior and Head of the Military Directorate, with power to issue decrees which have the force of laws.

Spain's colonies are of minor importance now as compared to the mighty Spanish Empire of the 16th, 17th and 18th centuries. They now consist of *Spanish Morocco*, *Ifni*, *Rio de Oro* and *Spanish Guinea*, all on the northwest African coast.

FRANCE

France extends from the English Channel, Belgium, Luxembourg and Germany on the north to Italy, the Mediterranean Sea and Spain on the south. The capital city is Paris, located on the Seine River, in the north-central section. The population of France is 39,302,511.

The country is divided into 89 administrative departments and the territory of Belfort. Corsica, an island in the Mediterranean near Italy, is part of France. It was the birthplace of Napoleon.

France, previous to 1940, was a democracy. Since its defeat in the Second World War the nation has been in virtual bondage to its conquerors and has been ruled by a Chief of State with dictatorial powers.

The French colonial empire is large. It contains 4,667,090 square miles of territory and has a total population of 69,272,365. In Asia France holds *Syria* and *Lebanon* under mandate and has as colonies *French India* and *French Indo-China*. In America the French possessions are *St. Pierre* and *Miquelon*, *Guadeloupe*, *Martinique*, *French Guiana* and *Inini*. In Pacific Oceania are *New Caledonia* and *Tahiti* and other small islands. In Africa France possesses *Morocco* as a protectorate, and *Algeria*, *Tunis*, *French West Africa*, *Togoland* as a mandate, *Cameroon* as a mandate, *French Equatorial Africa*, *Réunion*, *Madagascar*, *Commoro* and *French Somaliland*.

THE BRITISH EMPIRE

The British Empire includes the United Kingdom of Great Britain and Northern Ireland, the Channel Islands, the Isle of Man, India, the Dominion of Canada and other dominions, colonies, protectorates, dependencies and mandated territories. The total area of this vast empire is 13,642,218 square miles and its population reaches the grand total of 504,683,246.

The empire began to emerge with the discovery of Newfoundland in 1583. Today it extends through so much of the world that there is a saying to the effect that "the sun never sets on the British Empire." Its government is complex and varied, each area owing some form of loyalty to the crown. Indeed, "British Commonwealth of Nations" is probably more accurate as a descriptive term than the British Empire.

The United Kingdom consists of *Great Britain* (the island on which are *England*, *Scotland* and *Wales*) and *Northern Ireland*.

England

England is the southern part of the island of Great Britain, which is but a short distance from the coast of Europe. It is bounded on the north by Scotland, on the east by the North Sea, on the south by the Strait of Dover and the English Channel, and on the west by the Atlantic Ocean. London, the capital of the United Kingdom and the seat of British sovereignty, is one of the great cities of the world. Situated on the Thames River, it has a population of 8,202,818.

The population of England is 37,354,917, exclusive of Monmouthshire. Some of its important cities are Manches-

ter, Liverpool, Leeds, Sheffield, Birmingham, Leicester and Plymouth. Innumerable places are historically notable.

England is the largest unit of the United Kingdom and is ruled as a democratic monarchy. The King has certain powers, but is governed by a Parliament led by the Prime Minister and his cabinet. Essentially the form of government is a democracy.

Scotland

Scotland occupies the northern portion of the island of Great Britain. It includes the Scottish mainland, the *Hebrides Islands* off the northeastern coast, and the *Orkney* and *Shetland Islands*, due north. The population is 4,842,980. The capital city is Edinburgh. The government of the United Kingdom applies jointly to England, Scotland, Wales, and Northern Ireland.

The language of Scotland is English, but there are colorful local words. Important cities are Glasgow and Stirling. Abbotsford was the home of the famous Scottish writer, Sir Walter Scott. At St. Andrews, on the east coast of Scotland, the game of golf was originated.

Wales

Wales is a section of the west coast of the island of Great Britain. It has a population of 2,593,041, including Monmouthshire.

The country is a principality included in the United Kingdom and nominally governed by the eldest son of the English monarch, who bears the title of Prince of Wales. The people speak Welsh. Principal cities are Cardiff and Swansea.

Ireland

The island of Ireland, west of Great Britain, is divided politically into two distinct areas. *Northern Ireland* (Ulster) is the northeast corner of the island. It consists of six of

the nine counties of Ulster—Antrim, Armagh, Down, Londonderry, Fermanagh and Tyrone—plus the parliamentary boroughs of Londonderry and Belfast.

Northern Ireland is a self-governing part of the United Kingdom, with its own parliament. Its population numbers 1,279,745. The language spoken by the people is English, but with a decided brogue. Chief cities are Belfast, Londonderry, and Antrim.

The larger part of the Irish island is occupied by *Ireland*—Eire, as it is now officially known. It includes the provinces of Leinster, Munster, and Connaught and three former counties of Ulster. *Eire* will be discussed following this section on the British Empire.

Islands near Great Britain

Several islands, in addition to those mentioned, are part of Great Britain. The *Isle of Man* lies in the Irish Sea near the mouth of North Channel, about midway between England and Northern Ireland. This island has a population of 49,308. Its capital is Douglas. It is noted for its lovely hills and glens. At the southern tip is a high rock-island called the *Calf of Man*. The Manx cat, a pet with a stunted tail, is bred on the island. The *Channel Islands* are a group of small islands south of England, but nearer to French Brittany, in the English Channel. Among them are *Jersey*, *Guernsey*, *Alderney*, and *Sark*. The population of these islands is 93,205. St. Helier, located on Jersey, is the capital city. Jersey and Guernsey are famous for the particular breeds of cattle bearing their names.

Gibraltar

Gibraltar, a rocky promontory at the southernmost tip of the Iberian Peninsula, has been in British hands since 1713. It is a huge rock commanding the Atlantic entrance to the

Mediterranean Sea. A large and secure harbor has been constructed at the base of the rock, and the rock itself has been so well fortified as to be considered impregnable. Between the British land and that of Spain is a narrow strip of land extending across the peninsula and declared neutral territory. The fixed population of Gibraltar is 20,399. It is a crown colony with a governor appointed by the British King.

Malta

Malta, a small group of islands, lies south of Sicily in the Mediterranean Sea. They are often referred to as the Maltese Islands and include *Malta*, *Gozo*, and *Comino*. The civilian population of the islands is 268,668. The capital of the group is Valletta, on Malta. The islands came into British hands by annexation in 1814 and have been strengthened and fitted out as a naval base. Maltese cats and dogs originated in Malta.

The areas mentioned constitute the European lands included in the British Empire. However, this is only a small part. So that the reader may have a clear picture of the entire empire, parts of which have already been discussed and other parts which will be described, the table below will be helpful.

BRITISH EMPIRE

EUROPE

The United Kingdom

England

Wales

Scotland

Northern Ireland

Isle of Man

Channel Islands

Other European areas

Gibraltar

Malta

ASIA

India

British Provinces

Native States, etc.

ASIA—Continued

Aden
Socotra
Bahrein Islands
Cyprus
Ceylon
Maldivé Islands
British Malaya
Straits Settlements
Federated Malay States
Other Malay States
British North Borneo
Brunei
Sarawak
Hongkong and Territory
Palestine (Mandate)

AFRICA

Union of South Africa
Cape of Good Hope
Natal
Orange Free State
Transvaal
Southwest Africa (Mandate)
British South Africa
Basutoland
Bechuanaland Protectorate
Northern Rhodesia
Southern Rhodesia
Swaziland
British East Africa
Kenya Colony and Protectorate
Uganda Protectorate
Tanganyika (Mandate)
Nyasaland

Zanzibar Protectorate
Somaliland Protectorate
British West Africa
Nigeria
Cameroons (Mandate)
Gold Coast
Togoland (Mandate)
Sierra Leone
Gambia
Anglo-Egyptian Sudan
Ascension Island
St. Helena
Tristan da Cunha
Seychelles Island
Mauritius Island
Dependencies

NORTH AMERICA

Canada
Alberta
British Columbia
Manitoba
New Brunswick
Nova Scotia
Ontario
Prince Edward Island
Quebec
Saskatchewan
Yukon
Northwest Territory
Newfoundland
Labrador

CENTRAL AMERICA

British Honduras

WEST INDIES

Bermuda
Barbados
Jamaica

Turks and Caicos Islands	Tasmania
Cayman Islands	Northern Territory
Leeward Islands	Federal Territory
Windward Islands	<i>Papua, Territory of</i>
Trinidad	<i>New Guinea</i> (Mandate)
Tobago	<i>New Zealand</i>
SOUTH AMERICA	Western Samoa (Mandate)
British Guiana	Nauru (Mandate)
Falkland Islands and South Georgia	OCEANIA
AUSTRALASIA	Fiji Colony
<i>Australia</i>	Tonga Island Protectorate
New South Wales	Gilbert and Ellice Islands
Victoria	British Solomon Islands
Queensland	(Protectorate)
South Australia	New Hebrides
West Australia	Other Pacific Islands

EIRE (Ireland)

The capital of *Eire* is Dublin, with a population of 482,300. The total population of the country is 2,965,854.

Eire is an independent nation associated for limited purposes with the British Commonwealth of Nations. It has a president elected for a seven-year term. The official language is Gaelic, although English is widely spoken.

Chief cities, besides Dublin, are Cork, Limerick and Waterford. Because of the rich, green vegetation, Ireland has been called "The Emerald Isle." The country has many places of scenic and historical interest. An old castle in the village of Blarney is the site of the famous Blarney Stone. Tipperary, the town of the famous First World War song, is in County Kilkenny, Ireland.

BELGIUM

Belgium, formerly part of the Low Countries, has been an independent country since 1830. It is bounded by the North Sea, the Netherlands, Germany, Luxembourg and France. Its capital city is Brussels.

This little country is the most densely populated of all Europe, having an average of 710 people to the square mile. The total population is 8,386,553. Antwerp, on the Scheldt River, is the greatest port of continental Europe. It, along with Bruges, Ghent and Brussels, is noted for its art and architecture.

Eupen and Malmedy are towns in eastern Belgium which form a district ceded to Belgium by Germany after the First World War.

Belgium is divided into nine provinces. To meet the problem of the many languages spoken, the nation is divided into three administrative sections. In Wallonia only French is used officially; in Flanders, Flemish is the official language; in Brussels both languages are used. In the two provinces of Eupen and Malmedy German is spoken. Walloons are people of southern Belgium and northern France, but live today mostly in Belgium. They speak a French dialect.

Belgium has been called the "Cockpit of Europe" because of its role as a battlefield. Here the Battle of Waterloo, defeating Napoleon, was fought, and in the First World War much of the vital fighting went on here.

The nation has been ruled by a king and the throne is hereditary. The form of government is a limited monarchy. (Note: Belgium has been temporarily overrun by the Nazis.)

Besides the land comprising the mother country, Belgium has three areas in Africa which are important commercially. These are the *Belgian Congo* in south-central Africa, and *Ruanda* and *Urundi* in East Africa.

THE NETHERLANDS

The Netherlands (Holland) is a small kingdom in north-western Europe. It is on the North Sea, west of Germany and north of Belgium. Its capital is Amsterdam, although the official residence of the Queen is The Hague. The population of the country is 8,728,569. 's Gravenhage is the Dutch name of The Hague.

Much of the land in Holland is below sea level and is protected from flooding by dykes. These, with the many drainage devices constructed to make the land arable, are among the engineering wonders of the world. The Dutch have succeeded in reclaiming large tracts of land from the sea, giving them new fertile areas.

The country is ruled as an hereditary monarchy with executive power exclusively in the hands of the sovereign. The language is Dutch, akin to German. Important cities are: Amsterdam, famous for diamond cutting; Delft, a pottery center; and Rotterdam, a busy port.

Since 1922 the *Netherlands Indies* have been considered an integral part of the kingdom rather than as a colony. The colonial possessions of the Netherlands include the *Netherlands Indies* (Dutch East Indies), the *Netherlands West Indies*, and *Dutch Guiana* in South America. These colonies are of vast importance as the sources of oil, rubber and other raw materials.

ITALY

The Kingdom of Italy consists of all the Italian peninsula, reaching from the Alps on the north southeast into the Mediterranean Sea, the islands of Sicily, Sardinia, Elba and approximately 70 smaller ones. The main peninsula is bounded on the north by Switzerland and Austria, on the

east by Yugoslavia and the Adriatic Sea, on the south by the Ionian Sea and the Mediterranean, and on the west by the Tyrrhenian Sea, the Ligurian Sea and France. Italy is one of the densely populated countries of Europe, having about 371 people to the square mile. Its total population is 45,330,441.

The capital is Rome, a center of history reaching back to the centuries preceding the birth of Christ. In the midst of Rome is the center of the Catholic Church, *Vatican City*, which is an entirely independent state.

Although Italy is ruled nominally by a king whose throne is hereditary, its actual ruler is a Fascist dictator.

Leading cities of Italy are Naples, Milan, Turin, Florence, Genoa, Venice and Bologna.

Sicily is an island to the southwest of the Italian peninsula. North and west of it and separated from Italy by the Tyrrhenian Sea, lies the island of *Sardinia*. *Elba* is a small island just off the Italian coast between Italy and Corsica. Other smaller islands near Italy are included as part of the mother country.

The colonial empire of Italy has included several important areas in Africa. Among these are *Eritrea*, *Italian Somaliland* and *Libya*.

The *Dodecanese Islands*, 14 in number, are small Aegean Sea islands occupied by Italy in 1912. Their total area is 1,035 square miles, and population 140,848. Chief of the islands is Rhodes. These islands, forming a group lying off the coasts of Greece and Turkey, are claimed by Greece.

SWITZERLAND

Switzerland, nestled in the European Alps, is bounded by Germany, Austria, Italy and France. Its capital is Berne,

with a population of about 125,000. The total population of the country is 4,218,000.

Because of the diverse make-up of the population, several languages are spoken in Switzerland. The majority—approximately 3,000,000—of the people speak German; French is spoken by more than 831,000; Italian by about 242,000; Romansch by over 44,000; and other languages by about 25,000. Of course, many Swiss speak two or more of the languages.

Principal cities of Switzerland are Zurich, Basle, Berne, Geneva, Lausanne, St. Gall and Lucerne. The country is the winter playground of Europe, attracting thousands of tourists each year to its many mountain resorts. The mountains are among the most beautiful and awe-inspiring in the world.

The manufacture of watches has made Switzerland famous. The fine workmanship in metal and intricate, minute machinery is admired throughout the world.

Switzerland is a confederation of 22 cantons joined together under a federal constitution. Authority is vested in a parliament. There is an elected president.

AUSTRIA

Austria is directly east of Switzerland. Its capital is Vienna. The population of the country is approximately 6,600,000.

Before its conquest by Nazi Germany the country was a federal republic. The German language is spoken. Through Austria flows the famous Danube River, on which Vienna, a city of romance and rich in history, is situated. The Austrian Tyrol has won note as a tourist spot.

LIECHTENSTEIN

Liechtenstein, a small principality governed as an hereditary monarchy under a prince, is located on the upper Rhine River between Austria and Switzerland. The country has a population of about 12,000 and covers 65 square miles. Its capital is Vaduz.

The tiny country is united to Switzerland in a customs and commercial union. By a special arrangement, the country has been tax free, attracting corporations which make a small contribution to the state and enjoy exemption from all taxes.

LUXEMBOURG

Luxembourg is a European grand duchy covering 999 square miles tucked away below southern Belgium. It is bounded by Belgium, Germany and France. Its capital city is Luxembourg; the population of the country is 301,000.

The country is ruled by a Grand Duchess whose throne is hereditary. However, there is a commercial union with Belgium. (Note: Luxembourg is for the moment under Nazi control.)

Towns of the country are Esch, Differdange and Dudelange, all mining centers. The language is French and German officially, but the speech tends toward a German dialect.

ANDORRA

Andorra is the smallest republic in the world, lying in a valley of the Pyrenees between France and Spain. It is surrounded by mountain peaks 5,000 to 10,000 feet in height. Its capital city is Andorra, with a population of 700 persons. The total population of the country, consisting of six villages, is 5,231.

The country is under the suzerainty of France and the

Spanish Bishop of Urgel, but is governed by a council-general of 24 elected members. The inhabitants speak Catalan.

MONACO

Monaco is a principality covering 7.99 square miles on the Mediterranean shore of southeastern France, and surrounded by the French Department of the Alpes Maritimes. Its government is a monarchy under a hereditary prince, whose power is limited by an elected council of 12 members.

The chief city is Monte Carlo, a town of 9,428 residents, where the famous gambling casino is located. Monte Carlo is one of three Monaco communes. The others are Monaco, the capital, and La Condamine, a bathing resort. The country is supported entirely from taxes on the gaming tables at Monte Carlo, which have averaged close to \$5,000,000 a year. The inhabitants, 23,973 people, are not permitted to play at the gaming tables but more than 1,500,000 foreigners used to visit Monte Carlo yearly and supply the income.

SAN MARINO

San Marino is a state in north-central Italy, almost due east of Florence and 14 miles southwest of Rimini, in the Apennine Mountains. It claims to be the oldest state in Europe. It covers 38 square miles and has a population of 14,545.

The state is governed by an elected council of 60 members. San Marino has no public debt. The people are Italian in culture and language.

VATICAN CITY

Vatican City, an area of 1.6 square miles, lies in the heart of Rome, Italy. It includes the Vatican Palace, the Church

of St. Peter's, St. Peter's Plaza, the Vatican Museum and gardens and the Holy office and adjacent buildings. The Vatican is the residence of the Pope and the font of world Catholicism.

The city has a population of 1,025 and is governed by the Pope under a treaty drawn in 1926. The legal system is based on the code of canon law and the apostolic constitution. Thus, Vatican City is an independent area within the confines of Rome. Its independence is guaranteed by the Lateran Treaty.

GERMANY

The German Reich, as the country is called officially, lies in the heart of Europe. It is bounded by the North Sea, Denmark, the Baltic Sea, Poland, Czechoslovakia, Austria, Switzerland, France, Luxembourg, Belgium and the Netherlands. Its capital is Berlin, with a population of 4,332,242. The population of the country is 70,108,213.

Germany was, before the rise of the National Socialists (Nazis), a republic. Leading cities are Berlin, Hamburg, Cologne, Munich, Leipzig, Dresden and Breslau. The country contains many places of historical interest. The Black Forest is famed for its resources and as a tourist resort. The Oder and the Rhine are rivers of great beauty and romantic tradition. In Upper Bavaria lies the city of Oberammergau, the scene of the Passion Play which is produced every tenth year by the people of the town. Essen, in the Ruhr Valley, is the home of the noted Krupp steel works.

The rise to power of Adolf Hitler and the National Socialist Party changed the whole political picture of Germany and plunged the world into war. The nation has become a Fascist dictatorship with absolute power vested in Hitler and his party. It has begun a war which is spreading throughout the world and now involves a large part of the earth's

surface directly or indirectly. Much of Europe has been invaded by Nazi armies and the attempt is being made to bring the entire European continent under the rule of Hitler.

The extensive colonial possessions of Germany were lost after the First World War.

DENMARK

Denmark is situated on the peninsula of Jutland, thrusting north from Germany. Its capital is Copenhagen, with a population of 843,168; the total population is 3,805,000.

Denmark is a constitutional monarchy with a king whose throne is hereditary. The king and the Rigsdag, or Diet, hold power jointly. The language is Danish.

Important cities, other than Copenhagen, are Klampenborg, a popular seaside resort, and Elsinor, the burial place of Prince Hamlet, immortalized in the Shakespeare drama bearing his name.

The *Faroe Islands*, 300 miles northwest of the Shetland Islands in the North Atlantic, belong to Denmark. However, Great Britain has held a protectorate over them since April 11, 1940. They contain a population of about 25,744.

Greenland, a huge island in the North Atlantic, is the only Danish colony.

ICELAND

Iceland, an island in the North Atlantic Ocean, is of volcanic origin. As a result, it has many geysers and hot springs. It lies some distance north and slightly west of the British Isles. The capital city is Reykjavik, with 32,974 people. The whole island contains 118,888.

Iceland is a sovereign state, united with Denmark only in that the King of Denmark is also nominal King of Iceland. In 1941 the Althing, or Parliament, of Iceland voted to

cancel the union with Denmark and declare the island independent.

The people speak the Icelandic language, a pure tongue for more than 1,000 years. However, Danish is also widely spoken. In 1930 the people of Iceland celebrated the 1,000th year of the Althing, the oldest parliamentary assembly in the world.

NORWAY

Norway stretches along the western part of the Scandinavian peninsula from Denmark and the North Sea to the North Cape in the Arctic Ocean. It is bounded by the Barents Sea, Finland and Sweden. Oslo is the capital, with a population of 253,124. The population of the country is 2,937,000.

The coast of Norway, because of the deep indentations of the Atlantic Ocean, is 12,000 miles long. There are 150,000 islands scattered along these extensive shores which are part of Norway.

Norway is a constitutional hereditary monarchy. It is ruled by a king, but legislative power rests in the Storting (Parliament). The king may veto legislation, but it can be passed over his veto. The official language of the people is Norwegian.

Spitsbergen, an archipelago in the Arctic Ocean north of Norway, is administered by Norway. The largest of these islands is West Spitsbergen, 370 miles due north of Norway, and half way to the North Pole. The population of the islands is 2,700.

Another area over which Norway holds control is *Jan Mayen*, an island 300 miles north of Iceland, between Greenland and Norway. A weather station has been established on the island by Norway; otherwise it is uninhabited except insofar as the war may alter the situation.

Norway also claims sovereignty over *Bouvet Island*, an

uninhabited tract in the South Atlantic, and over *Peter I Island*, also uninhabited, in Antarctica.

SWEDEN

Sweden occupies the greater part of the Scandinavian Peninsula. Its capital, Stockholm, has a population of 583,621. The country contains 6,341,303 persons.

The government of Sweden is a constitutional monarchy. The king is limited in his power by the legislature.

Chief cities are Stockholm, Gothenburg and Malmo. The Swedish merchant marine holds a high place in the world's commerce.

FINLAND

Finland is in northern Europe, on the Gulf of Finland and the Gulf of Bothnia. Its capital is Helsinki, with a population of 293,237. Its total population is 3,863,753.

The nation is an independent republic. A president is chosen for a six-year term by an electoral college of 300, picked by direct vote of the people.

Because of the inland waters dotting it, Finland is called "the land of a thousand lakes." The largest—and the largest lake in Europe—is Lake Ladoga, which is shared with Russia. Chief cities of Finland are Helsinki, Abo, and Tammerfors. Finnish is the language.

ESTONIA

Estonia is one of the Baltic countries. Its capital, Tallinn, has a population of 140,000, the entire country 1,134,000. The people are of Finnish-Ugrian origin.

Estonia has been a republic with a president elected for a six-year term by direct vote. It is a land of picturesque old

towns. Among these are Tallinn, founded in 1219, Narva and Petseri. Their buildings date back to the early centuries of the Christian era.

In 1940 Estonia was taken over by Russia and became the Estonian Soviet Socialist Republic; the Communists took control of the legislature.

LATVIA

Latvia, with a population of 1,950,502, is south of Estonia, on the Baltic. Its capital is Riga, with a population of 393,211.

The country has excellent ports which can be kept open during the entire winter. Consequently it serves on the trade route between Russia and the western nations. Riga is the largest port on the Baltic. The Latvian constitution set up a republic. The president was elected for a three-year period. There was also a Saeima, or Parliament.

In 1940 Russia established Latvia as the Latvian Soviet Socialist Republic, setting up a new parliament dominated by Communists.

LITHUANIA

Lithuania, another of the Baltic states, is bounded on the north by Latvia. The capital is Kaunas, the population of the country 2,349,423.

Lithuania had a republican government with power resting in a president elected by the Assembly for a term of seven years. Assembly members were elected for five-year terms.

In 1940 Russia invaded Lithuania and gained control of the government through the election of a Communist-dominated parliament. By act of this parliament it became the Lithuanian Soviet Socialist Republic.

POLAND

Poland, south of Lithuania, has been one of the most partitioned countries in the world. Its history goes back to 966. From then to the present it has been divided four times—the last time in 1939. It was then a republic. It had access to the Baltic Sea through the Polish Corridor, which reached to the Free City of Danzig.

The capital of Poland is Warsaw, with a population of 1,265,700; the total population is 34,775,698. The Sejm is Poland's parliament.

In 1939 both Germany and Russia invaded Poland and split it. This partition was abrogated in 1941 by a treaty between Russia and the Polish war government in exile.

Chief cities of Poland are Warsaw, Lodz, Lemberg, Cracow, Posen and Vilna. Ignace Paderewski, the famous pianist, served as Premier of Poland during the period of its reconstruction after the First World War.

The Pripet Marshes are a large area of low land between Poland and Russia.

DANZIG

The Free City of Danzig, situated on the Baltic Sea with Poland to the west and south and Germany to the east, was created by the League of Nations to give Poland a port on the Baltic. The population, approximately 415,000, is predominantly German. Its government consisted formerly of a president, elected for a four-year term, and a Volkstag, or Parliament. In 1939 Danzig was reunited with Germany under Nazi pressure.

CZECHOSLOVAKIA

Czechoslovakia, a republic, lies in the very heart of Europe. It is bounded on the north by Germany and Poland, on the south by Rumania, Hungary, Austria, and Germany, and on the east by Germany. The capital is Prague, with a population of 848,823. The population of the entire country is 9,807,000.

This country is a restoration, in part at least, of the ancient Kingdom of Bohemia. It was fused from the territory of Bohemia, Moravia and parts of Silesia, Slovakia, and Carpatho-Ruthenia. As a result, the people are divided into definite national groups as follows: 8,527,154 Czechoslovaks, 377,830 Germans, 100,379 Hungarians, 512,289 Russians, 4,157 Poles, 126,310 Jews, 31,949 of other races and 127,028 aliens.

Many ancient castles and ruins of great estates are found among the forests and mountains of Czechoslovakia. There are also magnificent subterranean caverns. One of the famous sights of central Europe is the ice caves of Dobsina, in a district known as "Slovak Paradise." There are many spas and natural springs in the country.

Prague is the site of a settlement dating back 3,500 years. The city is rich in treasures of mediaeval architecture.

The country is a republic. Its president is elected for a seven-year term and parliament members for five-year terms.

In 1939 Germany invaded Czechoslovakia, took Prague and pronounced the republic no longer in existence. The country was reorganized as a protectorate under the Nazis.

HUNGARY

Hungary, for 1,000 years the abode of the Magyars, is a kingdom in central Europe, lying south of Czechoslovakia.

Its capital, Budapest, has a population of 1,585,678, the whole country 14,471,543.

Budapest is actually two cities, one on each bank of the Danube. The older is Buda, a town of ancient buildings and narrow, winding streets. Across the river, and connected with Buda by a bridge, is Pest, a modern metropolis with wide streets and many parks.

Formerly a kingdom in the Austro-Hungarian Empire, Hungary has been reduced and added to from time to time by a series of treaties and partitions. Its present area is 63,810 square miles.

In 1918 the king abdicated and a republic was established, with a president and legislative bodies. However, it is still known as a kingdom, and is ruled by a regent.

RUMANIA

Rumania dates its history back to 101 A.D., when the Romans colonized the Dacian Kingdom. The present kingdom was formed in 1859 with the union of the principalities of Wallachia and Moldavia. The country is bounded on the north by Czechoslovakia, Poland and Russia, on the east by the Black Sea, on the south by Bulgaria, and on the west by Yugoslavia, Hungary and Czechoslovakia. Its capital is Bucharest, with a population of 640,511. The total population is 14,098,850.

The government of Rumania is vested in a king, a senate and a chamber of deputies. As a result of a political upheaval the King was forced to abdicate in 1940, and a totalitarian dictatorship was established under the sponsorship of Nazi Germany.

Large cities of Rumania are Bucharest, Kishinev, Czernowitz, Galatz and Ploesti, an oil center.

YUGOSLAVIA

Yugoslavia's population is 16,200,000, consisting largely of Serbs, Croats and Slovenes. The mountainous country lies along the Adriatic Sea west of Rumania. Belgrade is the capital.

The government of Yugoslavia was established in 1918 with a king, a senate, and a Chamber of Deputies. Refusal to ratify a pact with Germany in 1941 led to occupation of the country by the Nazis, dismemberment of the kingdom and exile of the king.

Several islands along the coast are part of Yugoslavia. The shore is irregular, forming many fine harbors of which Split and Sushak are the most important. About 80% of the people speak Serb-Croat, and about 1,000,000 speak the Slovene language. The country is the largest producer of copper in Europe.

The leading cities are Belgrade, Zagreb, Ljubljana, Sarajevo, scene of the assassination of the Austrian Archduke in 1914 which started the First World War, and Novisad.

ALBANIA

Albania is a wild, mountainous country south of Yugoslavia. Its capital city is Tirana. The population of the country is 1,003,124. Albania is composed largely of Ghegs in the north and Tosks in the south. The Shkumbini River divides these two racial groups.

The country became independent in 1917 and was proclaimed a republic in 1924, but was made a monarchy in 1928. The constitution has provided for a democratic monarchy with a single elected chamber.

Italy seized Albania in 1939, the King and Queen fled and the country became a part of Italy under the Italian King.

BULGARIA

Bulgaria, a principality created by the Treaty of Berlin (1878), is bounded on the north by Rumania, on the west by Yugoslavia. Sofia is the capital. The total population of the country is 6,549,664.

The government is a limited monarchy. Members of the parliament are elected by direct vote. In 1941 Bulgaria came under German influence and the country was occupied by Nazi troops.

Bulgaria's language is Slavonic. The chief cities are Sofia, Philippopolis and Raschuk. Varna and Burgas are its ports on the Black Sea.

GREECE

Greece, with a history dating back to 776 B.C., is south of Albania, Yugoslavia and Bulgaria. Its capital is Athens. The population of the country is 7,196,900. The Aegean, Ionian, and Mediterranean seas wash the Greek shores.

The coast of Greece is jagged and many islands are scattered through the seas surrounding the mainland. Chief among these are the Northern Sporades, the Southern Cyclades, Crete, Samos, Scio, Mytilene, Lemnos, Samothrace and Thasos. Greece also controls the islands of Corfu, Levkas, Cephalonia and Zante, as well as smaller islands in the Ionian Sea.

Greece is a limited monarchy. Since the occupation by Germany in 1940, the Greek government has been conducted in exile while a Nazi-controlled regime rules in Athens.

The Greeks have planned to make Mount Olympus, the legendary home of the gods of mythology, into a national park. At present the region is wild and largely uninhabited.

Mount Athos, a promontory of 121 square miles, in north-

eastern Greece occupied by 20 monasteries of the Greek Orthodox Church, is a colony of independent groups. Each monastery is a tiny republic by itself. The monks number 4,800. No women are allowed to enter the territory. The area has been granted a constitution by the Greek government, making it a monastic republic under Greek sovereignty, but with an appointed Greek governor.

Many historically prominent cities are scattered through Greece. The chief modern ones are Athens, Salonika, Piraeus, the seaport of Athens, and Patras.

Eurasian Countries

Two countries are in both Europe and Asia. They are Turkey and the Union of Soviet Socialist Republics. They are classified here as Eurasian so that each may be treated as a whole for better understanding.

TURKEY

Turkey, formerly the Ottoman Empire, was until the First World War made up of European Turkey, Anatolia, Arabia, Syria, Palestine, Mesopotamia, Armenia, Kurdistan and islands in the Aegean Sea. Many events have transpired to divide this empire and leave modern Turkey much smaller.

The present European Turkey is bounded by Bulgaria and the Black Sea, the Bosphorus Strait, the Sea of Marmora, the Dardanelles, the Aegean Sea and Greece. Asiatic Turkey is surrounded by the Black Sea and Russia, Iran (Persia), Iraq, Syria, the Mediterranean and the Aegean. The capital of modern Turkey is Ankara, with a population of 123,699. All Turkey contains 17,869,901 people.

In 1925 Turkey adopted a constitution and became a republic. It has a single-house National Assembly with mem-

bers elected by the people for four-year terms. The Assembly elects the president for a four-year term. Turkish has been made the official language.

Many cities have been sites of great historic importance. Constantinople, now Istanbul, was the seat of the ancient Roman Empire in the East. The ancient city of Troy was at the south end of the Dardanelles. Other leading cities are Smyrna, Konia, Brausa, Adana and Adrianople. The Angora cat was bred originally in the Turkish capital. The country is noted for its tobacco, carpets and examples of fine architecture.

Two more recent names for the ancient city of Byzantium are Constantinople and Istanbul. Byzantium was founded by the Greeks in 658 B.C.

RUSSIA

Russia, officially the Union of Soviet Socialist Republics, is the largest country in the world. It stretches across eastern Europe, all of northern and part of central Asia. It is bounded on the north by the Arctic Ocean, on the east by the Bering Sea, the Sea of Okhotsk, the Pacific Ocean and the Sea of Japan, on the south by Manchukuo, Mongolia, Tannu-Tuva, China, Afghanistan, Iran, Turkey and the Black Sea, and on the west by Rumania, Poland, Latvia, the Gulf of Finland and Finland. It covers 8,819,791 square miles.

The capital of this vast country is Moscow, with a population of 4,137,018. The total population of Russia is 192,695,710. Moscow, the "nerve center of the Soviet Union," is a city of great charm and vitality. One can see old buildings and streets of Czarist Russia and the tall, modern structures and wide avenues of modern Russia. Here are the famous Kremlin and the Red Square. Leningrad, another

historically important city, is the center of Russian science and research. Its palaces and museums contain many famous works of art and relics of untold value. Kiev is a thriving industrial city in the Ukraine.

In 1936 Russia adopted a new constitution which divided the country into 11 Union Republics, each with its separate government for local affairs, patterned after that of the All-Union government. In 1940 a 12th Union Republic was formed, followed by a 13th, 14th, 15th and 16th the same year. These Republics are as follows:

Russian Soviet Socialist Federated Republic: This is Soviet Russia proper and contains 70% of the population of the Soviet Union and about 78% of its territory. Its capital is Moscow, and its population 109,278,286. The Republic extends from Estonian, Latvian, Finnish, White Russian and Ukrainian borders on the west to the Pacific Ocean on the east, and from the Arctic Ocean on the north to the Black Sea, Caspian Sea, Kazak Soviet Socialist Republic, Mongolia and Manchuria on the south.

Byelo-Russian Soviet Socialist Republic: Generally this is known as White Russia. Minsk is the capital, with 238,772 people. The entire population of 10,367,976 consists of about 80.6% Byelo-Russians, 10% Jews and some 9.4% Russians, Ukrainians and Poles.

The Ukrainian Soviet Socialist Republic borders on the Black Sea and up to 1939 had Poland and Rumania on the west and southwest. Its capital is Kiev, a city with a population of 846,293. This is the most densely populated of the republics for its size, having a total of 38,960,221 inhabitants. Of this number 80% are Ukrainians, 9.5% are Russians, 5.4% Jews, 1.6% Poles and 3.5% Greeks, Bulgarians, Rumanians and Gypsies. The area has rich soil, huge deposits of coal, iron and other metals, and sources of vast electric power. The largest hydro-electric plant in Europe,

the Lenin Hydroelectric Station, is on the Dnieper River.

Azerbaijan Soviet Socialist Republic: Here lie the most important oil fields of Russia. The capital of the Republic is Baku with a population of about 709,000. The total population of the area is 3,209,727, three-fifths composed of Azerbaijanians, a Turkish people.

Armenian Soviet Socialist Republic: This includes mountainous Armenia. Its capital is Erivan, with a population of 150,000. The population of the Republic is 1,281,599. About 85% are Armenians.

Georgian Soviet Socialist Republic has the largest manganese mines in the world. The capital is Tiflis, population 414,000. The Republic has altogether 3,542,289 persons. Two-thirds are native Georgians.

Uzbek Soviet Socialist Republic: This was created in 1924. Its capital is Tashkent, with a population of 585,005. The population of the whole Republic is 6,282,446. The finest cotton land in Russia is in the Uzbek region.

Turkman Soviet Socialist Republic: The territory is largely desert, including the great Kara Kum Desert. The capital is Ashkhabad, with a population of about 79,000.

Tajikistan Soviet Socialist Republic: An area of 55,040 square miles in the extreme south of central Asia, bordering on Afghanistan and China. It became a Republic in 1929. The capital, Stalinabad, has a population of about 60,000.

Kazak Soviet Socialist Republic: Organized in 1936 from portions of the Russian Republic. It occupies one-seventh of the entire Soviet Union. Its capital is Alma Ata, with a population of 150,000. The area is rich in oil and coal.

Kirghiz Soviet Socialist Republic: Another Republic created in 1936 from portions of the Russian Republic. Its capital city is Frunze.

These eleven Republics constitute the original area of Russia before the present period of invasion and annexation. In

1940 Russia added five areas to its territory and constituted them as Republics. These were:

Karelo-Finnish Soviet Socialist Republic: Ceded to Russia by Finland after the war between Russia and Finland. The population, 469,100, is mixed Karelian, Finn and Russian. The territory has 26,000 small lakes as well as the two largest lakes in Europe, Ladoga and Onega.

Moldavian Soviet Socialist Republic: When, in 1940, Russia obtained from Rumania the province of Bessarabia and the northern sections of Bukowina, it constituted them as a new Republic. The area covers 19,176 square miles and has a population of 3,464,952.

Lithuanian Soviet Socialist Republic: After Russian troops invaded Lithuania and the Communists gained control of the Parliament, the country was incorporated into the Soviet Union in 1940. The capital, Vilna, has a population of 207,750. The area covers 22,656 square miles and has a total population of 2,879,070.

Latvian Soviet Socialist Republic was established in 1940 after Russian invasion of Latvia. The capital was established at Riga. The area is 25,402 square miles and contains 1,950,502 persons.

Estonian Soviet Socialist Republic: Established at the same time and in the same way as the Lithuanian and Latvian Republics. Its capital is Tallinn, with a population of 140,000. The 18,353 square miles have a total population of 1,134,000.

The constitution of 1936 provided for a Supreme Soviet meeting twice a year and elected for a period of four years. This is the supreme repository of state power. It consists of two legislative chambers, the Soviet of the Union and the Council of Nationalities. It elects a presidium consisting of a president, 16 vice-presidents, and 24 members, to exercise executive power.

Although a common Russian language is spoken in most of the area covered by all Russia, there are many nationalities with numerous separate languages and dialects.

Asia

The continent of Asia, an area of 17,000,000 square miles, is the largest of the continental land masses. A little more than half of it is included in Russia. The remainder is divided among the following political divisions:

China; Japan, with Korea and Formosa; French Indo-China; Thailand (Siam); the Malay States; India, with Burma, Baluchistan and the native states; Bhutan; Nepal; Afghanistan; Persia; Arabia; Iraq; Palestine and Transjordan; Syria; Turkey (of which we have already spoken); and minor foreign possessions.

CHINA

The history of China dates back to approximately 2205 B.C., making it one of the oldest civilizations known. China was the Cathay of olden times. The area then included much more of the Far East than the present boundaries of China. It occupies today a territory about one-third larger than that of the United States. It is bounded on the north by Siberia and Manchukuo, on the east by the China Sea and Yellow Sea, on the south by French Indo-China, India, Bhutan and Nepal, and on the west by Russia. Its capital city, established temporarily because of Japanese invasion, is Chungking, in West China, with a population of 635,000. The population of all China is put at 457,835,475.

China proper consists of 24 provinces, occupying an area about twice the size of that part of the United States east

of the Mississippi River. The population density is 174 persons to the square mile. The province of Kiangsu, in which Shanghai is located, is the most densely populated area in the world, with 36,469,321 people—something more than 872 people to the square mile.

Shanghai has long been China's chief commercial and industrial city. On the left bank of the Whangpoo River, it is the leading port of the country. There were in it a number of foreign concessions. The population of the city is 3,489,998. The International Settlement contained the interests of 12 nations and the business houses of 30,000 foreign nationals. The population of the settlement is 1,007,868; it has been administered by the Shanghai Municipal Council. The French Concession alone has 496,536 people in it.

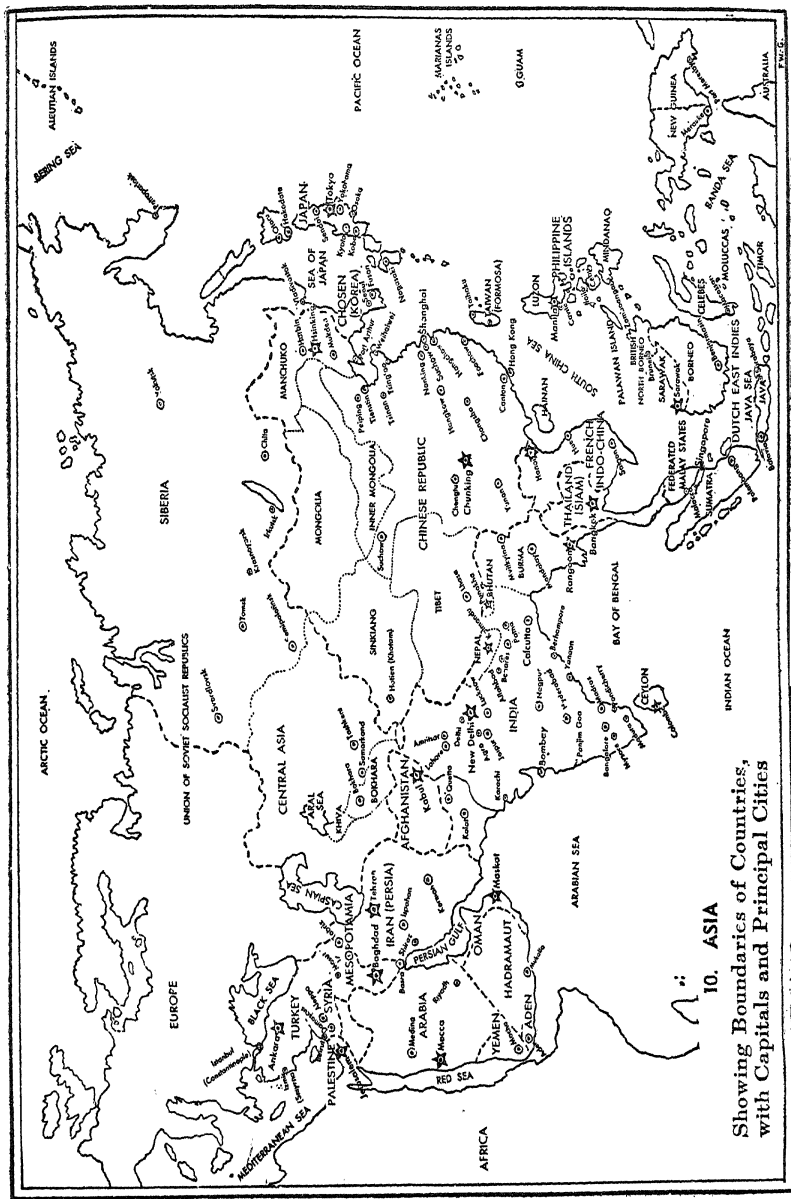
With the overthrow, in 1911, of the ancient Manchu Dynasty, China became a republic with a National Government Council; five subordinate Councils are concerned with executive, judicial, legislative, examination and supervisory duties. There is a president of the national government.

The Chinese language has within it many dialects, a number of them so diverse as not to be understood by those speaking other dialects.

Some of the chief cities of China are Peiping, Nanking, Shanghai, Hankow, Hangchow, Canton, Tientsin, Chungking and Changsha.

Mongolia is nominally a part of China. *Outer Mongolia* is a republic under Chinese suzerainty. Mongolia is bounded on the north by Siberia, on the south by Sinkiang, on the west by Turkestan and on the east by China proper and Manchuria. The area of this territory is 1,875,000 square miles, and the population 850,000.

In 1934 *Inner Mongolia*, although in allegiance to China, established an autonomous government. Outer Mongolia is governed on the Soviet Russian model. The northwest por-



tion, *Tannu-Tuva*, an area of 64,000 square miles with a population of 65,000, is still more closely affiliated with the Soviet Union.

Sinkiang, or Chinese Turkestan, is called the New Dominion, and includes Chinese Turkestan, Kulja, Kashgaria and all the Chinese dependencies between Mongolia and Tibet. The population, about 1,200,000, consists of Turks, Mohammedans, and Chinese. Ili is the most important town. From this province comes most of the jade.

Tibet is still a land of mystery. Large areas of it are unexplored. It is a land of challenging mountains, impassable in winter. It lies between the Himalayas and the Kwenlun Mountains. The capital city is Lhasa. Tibet covers 463,200 square miles and has a population of about 3,000,000, although estimates range up to 7,000,000. The country is ruled by a Dalai Lama, believed to be the incarnation of Buddha. Although Tibet is technically part of China, it is largely self-governing.

J A P A N

The island empire of Japan, an area of 148,756 square miles with a population placed at 72,875,800, is in the North Pacific Ocean off the coasts of China and Siberia. It extends from the Kurile Islands in the north to the island of Formosa, or Taiwan, in the south. It includes the southern half of the island of Sakhalin and the Kingdom of Korea, as well as the Kwantung Peninsula, for which it has a 99-year lease, and the mandated Marshall and Caroline islands, Ladrone and Peiew in the Pacific Ocean. Including all these possessions, the Japanese Empire covers 260,644 square miles and has a population of 105,226,101.

Japan was opened to the world by the American Commodore, Matthew Perry. In 1854 he led an expedition to the

islands with a letter to the Emperor from President Fillmore and signed the first trade treaty. Previously the Japanese had refused to deal with any outside powers.

Manchukuo, though nominally an independent state, is actually a Japanese possession. Those in actual control of the government are Japanese and the affairs of the country are run from Japan.

Tokyo, the capital of Japan, has a population of 7,094,600. This includes the residents of several outlying areas absorbed by Tokyo in 1932.

Japanese government is in the hands of the Emperor and an Imperial Diet consisting of two houses, Peers and Representatives. Members of the latter are elected by direct vote of the people and serve a term of four years. The Emperor exercises executive power with the advice of his ministers and legislative power with the consent of the Diet. The throne is hereditary.

Korea, known as the "Hermit Kingdom," has a history which reaches back to the 12th century B.C. It is bounded on the north by Manchukuo, on the east by the Sea of Japan, on the south by the Chosen Strait and on the west by the Yellow Sea and Manchukuo. The kingdom was annexed by Japan in 1910.

The area of Korea is 85,246 square miles, the population 22,633,857. The Korean capital is Seoul. Other large cities are Fusan, Pingyang and Taiku.

Kwantung is the southern portion of the peninsula of Lioatung. On the north it borders on Manchukuo, on the east is the Bay of Korea, on the south the Yellow Sea, and on the west the Lioatung Gulf. After much conflict and several treaty arrangements, Japan obtained Kwantung from China on a 99-year lease. On the peninsula are situated fortified Port Arthur and the important seaport of Dairen, the terminus of the South Manchuria Railroad.

Formosa (Taiwan) is a large island between Japan and the Philippine Islands. The China Sea is to its west, the Pacific Ocean on its east. The island has an area of 12,880 square miles and a population of 5,212,426. Its capital is Taihoku.

Formosa was ceded to Japan by China in 1895 following a Sino-Japanese War. The savage tribes in the north have been a source of constant trouble to the Japanese, who have been ruthless in their policy of subjugation.

Between Formosa and the China coast is a group of islands known as the *Pescadores* (Pheng-hu). They cover 50 square miles and have 60,000 people. They were also ceded to Japan by China in 1895 and are under the government of Formosa.

The *Spratly Islands* are seven coral reefs in the South China Sea. They were annexed by Japan in 1939. Numerous smaller reefs and islets in the area were added by Japan later. Their only value is military.

There are a number of islands in the Pacific Ocean over which Japan holds mandate. The total area of these, although they are scattered over an immense area of ocean, is only about 830 square miles. These islands are as follows: *Marianne* group (except Guam) with a population of 44,205; the *Marshall Islands* with a population of 10,439; and the *Caroline Islands*, population 30,915. Chief among all these islands are Ponape, Yap and Parao. The seat of government is at Parao, in the Carolines. Each island group has its own language.

Another Japanese possession is *Karafuto*, or Japanese Sakhalin, the southern half of Sakhalin Island, which lies north of Japan proper. This came into Japanese hands from Russia through the Treaty of Portsmouth in 1905. It is bounded on the north by the Russian half of the island, on the east by the Sea of Okhotsk, on the south by Soya Strait and on the west by Tatarski Strait. Its area is 13,930 square

miles; it has a population of 331,949. Japan has attempted to colonize this area but has not been extremely successful. About 70% of the land is covered with dense forests. The capital is Odomari.

MANCHUKUO

In 1931 Japan, through military operations, wrested from China its three northeastern provinces (Manchuria) of Fengtien, Kirin and Heilungchiang, along with Jehol, and, in 1932, established these as the "independent" state of Manchukuo. The Emperor, put on the throne by the Japanese, has a cabinet of Chinese puppet ministers, each of whom is controlled by a Japanese adviser.

The territory is bounded on the north by Russia, on the east by Russia and Korea, on the south by the Yellow Sea and China, and on the west by Inner Mongolia, Outer Mongolia and Russia. The capital of this puppet country is Hsinking, with a population of 360,294. The population of Manchukuo itself is 36,949,972.

SYRIA

Modern Syria was formerly a province of the Turkish Empire, but was made an independent state in 1920, to be administered under French Mandate. On the north is Turkey, on the east Iraq, on the south Trans-Jordan and on the west the Mediterranean Sea. Syria is divided into four areas with somewhat different types of administration.

The divisions of Syria are the Republic of Lebanon, with Beirut as its capital; the state of Syria, with Damascus as capital; the government of Latakia; and the government of Jebel Druse. The latter two are under direct French administration. The population of the entire area numbers 3,630,000. The French experienced much difficulty in ad-

ministering it because of violent uprisings and racial antagonisms. In 1941 British and Fighting French forces took over the mandate from France and Syria was proclaimed a republic. A president was designated and the mandate terminated.

Aleppo, Alexandretta and Latakia are important Syrian cities.

PALESTINE

Palestine, the Holy Land, is an area of 10,429 square miles, located between the Mediterranean Sea and the Jordan River. It is bounded on the north by Syria. Its capital, Jerusalem, contains a population of 105,000, while the total population is 1,529,559.

The country, for centuries under Turkish rule, became a mandate of Great Britain in 1923 and is now governed by a British High Commissioner.

There are in Palestine 941,362 Moslems, 456,743 Jews and 119,007 Christians. There are three official languages—English, Arabic, and Hebrew. After the British took over the country, an attempt was begun to establish it as a Jewish homeland. But the Moslems opposed this plan violently and for the last 18 years there have been constant antagonisms and violent clashes. To alleviate this condition, the country has been divided into three zones: one in which only Arabs can buy land, a second in which transfer of land to Jews is restricted, and a third in which Jews may purchase land easily.

The country is equally sacred to Christians, Jews and Moslems. It contains the lore of Biblical history sacred to Christianity. Here also is the holy rock of Abraham's near sacrifice of Isaac, and the Mohammedans' Temple of Omar.

Chief towns of Palestine are Jerusalem, Jaffa, Haifa, Gaza, Hebron, Nazareth, Bethlehem, and Acre.

Within the Palestine mandate lies the small state of *Trans-Jordan*, an area of 34,700 square miles with a population of 300,000. About 260,000 are Mohammedans, 30,000 are Arab Christians, and 10,000 are Circassians. The official language of Trans-Jordan is Arabic. This area is under the responsibility of the High Commissioner of Palestine. Although it is administered by an Emir, he is under a council of advisers and the supervision of a British agent stationed in the country.

The boundaries of Trans-Jordan are not definitely determined, since the country is largely desert over which nomadic Arabs roam.

CYPRUS

Cyprus is an island of 3,572 square miles in the Mediterranean Sea 40 miles south of Asia Minor and 60 miles west of Syria. It is 240 miles north of Egypt. The island has been administered by England since 1878 under an agreement with Turkey, and, in 1915, was annexed and became a crown colony. The population is 376,529, of which four-fifths are Greek Christian and the remainder Turkish Mohammedans.

Nicosia is the capital; the chief ports are Limassol, Larnaca and Famagusta.

ARABIA

Arabia, more accurately the Arabian states, occupies a peninsula in the southwest corner of Asia estimated to cover 1,000,000 square miles and to have a total population of 10,000,000. To the north are Trans-Jordan and Iraq, to the east the Persian Gulf and the Gulf of Oman, on the south the Arabian Sea and the Gulf of Aden, and on the west the Red Sea. Nearly half of Arabia is desert.

The Saracens, who figured in the Crusades, dwelt in north-western Arabia. Their tribes were famous as fierce fighters.

Saudi-Arabia is a kingdom including the sultanate of Nejd and the kingdom of Hejaz, with its dependencies. Nejd is in the interior of the country; its population is almost wholly nomadic. The dependencies of Hejaz are El Hasa, Katif, Jabal, Shammar, El Jauf and the greater part of Asir. Hejaz itself is the southwest part of Arabia, from Egypt to Asir along the Red Sea.

This country has two capitals, Mecca, with a population of 80,000, and Riyadh, with 30,000. Mecca, situated in Hejaz, was the birthplace of Mahomet and is the site of a great mosque over the Kaaba, or sacred shrine, in which is a black stone believed to have been given by Gabriel to Abraham. In Hejaz also is Medina, in which is the Mosque of the Prophet, over the tomb of Mahomet. Both of these cities are important commercially as well as religiously. The chief port is Jeddah, on the Red Sea. The country is ruled by a king who is also the Sultan of Nejd.

Asir, a small principality on the Red Sea, has a population of about 750,000 and is under the suzerainty of the King of Hejaz.

Yemen is an Imamate, or country ruled by an Imam. It is located in the southwest section of the Arabian peninsula between Asir and Aden. Its capital is Sana, famous for its great wall and eight gates. The total population of the country is 3,500,000. The chief port of Yemen is Hodeida.

Kuwait is a sultanate situated along the Persian Gulf, with Iraq to the west and north and Saudi-Arabia to the south. Its capital is the city of Kuwait, with a population of 25,000. The total population of the sultanate is 50,000. Kuwait, an important port, was selected as the terminus of the Berlin-to-Bagdad railroad.

Oman, a sultanate, occupies the southeast portion of the

Arabian peninsula from El Katar on the Persian Gulf to Ras Sajir on the Arabian Sea. It has a population of 500,000, mostly Arabs. The capital city is Muscat, with a population of 4,500. The best camels in Arabia are bred in the interior of Oman.

Hadhramaut is a largely unexplored region along the southern coast of the Arabian peninsula, ruled by wazirs and having an estimated population of 150,000.

The *Bahrein Islands* lie off the Arabian coast in the Persian Gulf. They have a population of 120,000, chiefly Mohammedans. They are under British protection. The capital city is Manama. The islands are among Britain's main sources of oil.

ADEN

Aden is a peninsula at the southern entrance to the Red Sea, extending out from the Arabian coast. Its area is about 75 square miles. Protectorate areas surrounding Aden cover about 112,000 square miles. Aden is a crown colony with a population, including that of Perim, of 48,338. This is the chief commercial region of the Arabian peninsula. *Socotra*, an island politically attached to Aden, just off the African coast, is under British protection. Its population of 12,000 is engaged almost wholly in the raising of livestock.

IRAQ

Iraq is the Arabian name for the ancient country of Mesopotamia. The country is bounded by Turkey, Iran (Persia), the Persian Gulf, Kuwait, Arabia, Trans-Jordan and Syria. Its capital is Bagdad, with a population of 499,410. Most of the Iraq people are Mohammedans, and include a sprinkling of Jews and Christians. The population of the entire country is about 3,670,000.

In this fertile valley of the Tigris and Euphrates Rivers flourished the ancient cities of Nineveh and Babylon.

Iraq is an independent state ruled by a king, whose throne is hereditary, and a Chamber of Deputies. Thus, the government is a constitutional monarchy. The country was under British mandate until 1932.

Mosul, an oil center, and the port of Basra are leading cities.

IRAN

Iran, usually called Persia, is a country occupying 628,000 square miles in southwestern Asia. It is bordered on the north by Russia and the Caspian Sea, on the east by Afghanistan and India, on the south by the Gulf of Oman and the Persian Gulf, and on the west by Iraq and Turkey. Its capital is Teheran.

The people are largely Moslems of the Shi'a sect. The government is a limited monarchy, with a National Assembly elected every two years. The country has been occupied during the war by Russian and British troops to protect the oil fields, among the richest in the world.

Leading cities of Iran are Teheran, Tabriz, Ispahan and Mesnad.

AFGHANISTAN

Afghanistan, often called "the land of rocks and stones and sanguinary feuds," is a mountainous country in southern Asia, bounded by Russia, India and Iran. Its capital city is Kabul. The total population of the country is 10,000,000.

The people of Afghanistan are largely Mohammedan, with the Durani the dominant race. Many primitive tribes of Pathans range along the border. The languages spoken by most of the people are Pushtu and Persian.

The government is under a king, with a senate and National Assembly.

INDIA

India is the "sub-continent" peninsula of southern Asia, bounded on the north by Afghanistan, Nepal, Bhutan and Tibet, on the east by China, French Indo-China and Thailand (Siam), on the south by the Bay of Bengal, the Indian Ocean and the Arabian Sea, and on the west by Iran and Afghanistan. Its capital is New Delhi. The vast population of India numbers 352,837,778.

The peoples of India are a mass of various races and languages. There are more than 45 races, speaking something over 200 languages. The census of 1931, the latest available, shows the following population figures:

Hindus	239,195,140
Moslems	77,677,545
Buddhists	12,786,806
Tribal	8,280,347
Christians	6,296,763
Sikhs	4,335,771
Jains	1,252,105
Zoroastrians	109,752
Jews	24,140

India is divided into British India, with a population of 289,491,241, and the native states or agencies, having 63,346,537. India is subdivided as follows:

BRITISH INDIA	AREA	POPULATION
Ajmer-Merwar	2,711 sq. mi.	560,292
Andamans and Nicobars	3,143	29,463
Assam	67,334	9,247,857
Baluchistan	134,638	868,617
Bengal	82,955	51,087,338

BRITISH INDIA	AREA	POPULATION
Bihar and Orissa	111,702	42,329,583
Bombay Presidency	151,673	26,398,583
Aden	80	51,478
Central Provinces & Berar	131,095	17,990,937
Coorg	1,593	163,327
Delhi	573	636,246
Madras	143,870	47,193,602
Northwest Frontier Prov.	36,356	4,684,364
Punjab	105,020	24,018,639
United Provinces	112,191	49,614,833
NATIVE STATES AND AGENCIES		
Baroda State	8,164	2,443,007
Central India Agency	51,597	6,632,790
Cochin State	1,480	1,205,016
Gwalior State	26,367	3,523,070
Hyderabad State	82,698	14,436,148
Jammu & Kashmir State	84,516	3,646,243
Mysore State	29,326	6,557,302
Punjab States Agency	31,241	4,472,218
Rajputana Agency	129,059	11,225,712
Sikkim State	2,818	109,808
Travancore State	7,625	5,095,973
West India States Agency	35,442	3,999,250

Indian affairs in London are handled by the Secretary of State for India. There is a British governor-general at New Delhi and two native legislative assemblies, the Council of State and the House of Assembly. Although British India and the Native States are closely federated, the British King, as Emperor of India, guarantees semi-independence to the Native States and several provinces. Some of the Native States have almost complete autonomy, coming under British control only in matters affecting India as a whole.

Among the principal cities of India are Calcutta, Bombay, Madras, Delhi, Nagpur and Benares.

Sikkim, covering an area of 2,818 square miles, lies in the Himalaya Mountains south of Tibet. Its population is 109,808. This is a state of India under the rule of a maharajah who enjoys British protection. The population is made up largely of Bhutias, Lepchas and Nepalese.

Baluchistan, within the boundaries of British India, has a section ruled almost independently by the Khan of Kalat, with British support. It has a population of 868,617.

The *Andaman Islands* are a group of 204 small islands situated 120 miles from Burma in the Bay of Bengal. These islands have been used until very recently as a prison colony for India. The natives of the islands are pygmies.

The *Nicobar Islands*, 75 miles south of the Andamans, cover 635 square miles, with a population of 9,481. The Andamans and Nicobars form a province of British India.

BURMA

Burma, long desiring independence, was cut loose from British India in 1935 and made a crown colony with its own constitution. The country, with a population of 14,667,146, is bounded by Tibet, China, Thailand (Siam), the Bay of Bengal and provinces of British India. Rangoon, the chief port, is the capital. The city of Mandalay is in central Burma. Prome and Akyab are other towns in Burma. Prome is in the interior, northwest of Rangoon; Akyab is a port on the Bay of Bengal, near the Indian frontier.

CEYLON

Ceylon, an island off the southern tip of India, is a British crown colony. It is about the size of West Virginia, and has

a population of 5,312,548. The capital is Colombo. The island of *Manar*, near Ceylon, is almost joined to Rameswaram Island by a sandbank which forms a chain known as Adam's Bridge. Adam's Peak, near the west coast, which rises to a conical summit with a sort of platform, is the height from which Gautama Buddha is believed to have descended. On the top is a hollow shaped like a footprint, $5\frac{1}{2}$ by $2\frac{1}{2}$ feet, which is revered by Hindus, Buddhists and Moham-medans; each claims it to be the footprint of a different being, either Siva, Gautama Buddha or Adam.

The *Maldivé Islands*, 400 miles west of Ceylon, are a chain of small coral formations administered with Ceylon. They have a population of 79,000.

BHUTAN

Bhutan, a state subsidized in part by the British government, is located in the Himalaya Mountains. It is surrounded by Tibet, British India and Sikkam. Its capital city is Punakha and the total population of the country is about 300,000. The land is ruled by a maharajah.

NEPAL

Nepal lies in the southern Himalaya Mountains and is bounded by Tibet and India. Its capital is Kathmandu, and the total population 5,600,000. The capital is located in a most fertile valley in which are more than 2,700 Buddhist shrines noted for their exquisite art. Paton is the largest city of Nepal, and Pashpoti a center of religious pilgrimages. The ruler is a maharajah whose power is shared by a Prime Minister, who is also a member of the royal family. The kingdom is under British influence.

FRENCH INDIA

France holds several colonies along the southeast coast of India, the Coromandel coast, on the Bay of Bengal. These colonies, divided into five dependencies, are: *Pondicherry*, with a population of 186,366; *Katikal*, with a population of 62,902; *Chandernagor*, population 36,254; *Mahe*, 13,661; and *Yanaon*, 5,437. The French possessions in India cover 196 square miles and have a total population of 304,680. Their capital city is Pondicherry.

PORTUGUESE INDIA

Portugal's possessions in India total 1,537 square miles with a population of 601,000. These include *Goa*, a section of the Malabar Coast in southwest India, with the capital at Nova Goa; *Damao*, near Bombay; and *Diu*, a small island in the Arabian Sea 140 miles west of Damao.

THAILAND (Siam)

Siam, one of the ancient kingdoms of Asia, lies along the Malay Peninsula south to the Federated Malay States. This oddly shaped piece of land is bordered by French Indo-China and Burma, the Gulf of Siam, the Federated Malay States, the Indian Ocean and Burma.

In 1939 the name of Siam was changed to Thailand.

The capital of Thailand is Bangkok, with a population of 931,170. The population of the country is 15,976,000. Nakon Sritamaraj, one of the ancient cities, is the center of the famous "Nielio" art.

Thailand is a limited monarchy with an elected Parliament.

MALAYA

British Malaya consists of the Straits Settlements, the Federated Malay States and the Unfederated Malay States. Included for administrative purposes are British North Borneo, Brunei and Sarawak. Indonesia is the name applied to the Malay archipelago.

The *Straits Settlements* are portions of the Malay Peninsula which together form a crown colony. *Singapore*, an island of 225 square miles, is the capital and chief port of the settlements. It is the site of the great British naval base, the "Gibraltar of the East," which has guarded the trade route from the British Isles to Australia and New Zealand. It has a population of about 600,000, 80% Chinese. *Labuan Island*, off the northwest coast of the Island of Borneo, is part of these settlements. Its chief city is Victoria. The *Cocos* or *Keeling Islands*, a coral group in the Indian Ocean southwest of Java; *Christmas Island*, in the Indian Ocean; the town of *Malacca* and adjacent territories; and *Penang*, including Penang Island, Wellesley and the Dindings Islands and territory, are likewise parts of the settlements.

The total area of the Straits Settlements is 1,356 square miles and the population 1,406,120. The settlements are the principal source of tin in the world and furnished three-fourths of the tin and rubber used in the United States.

The *Federated Malay States*, four in number, are situated on the Malay Peninsula and cover an area of 27,540 square miles. They have a population of 2,169,313. Each state has a native ruler who governs with the advice and instruction of the British High Commissioner of the Straits Settlements. The states include *Perak*, *Selangor*, *Negri Sembilan* and *Pahang*. *Negri Sembilan* is itself a confederation of nine small states. The capital of the Federated States is *Kuala*

Lumpur, a great crude-rubber center. Kota Bahru and Ipoh are other cities in the region.

The *Unfederated Malay States* are a group of small areas, each with a British adviser, under native sultans. They include Johore, Kedah, Perlis, Kalantan and Trengganu. The first is a protectorate of Great Britain, while the others were ceded to Great Britain by Siam in 1909. They cover 22,276 square miles and have a population of 1,918,831.

British North Borneo is the northern end of the Island of Borneo, 29,500 square miles, containing 270,223 inhabitants. Many of these are savage tribes. The capital city is Sandakan. The High Commissioner of British Malaya governs in British Borneo.

Brunei, a district on the northern side of the Island of Borneo, between British North Borneo and Sarawak, is a sultanate under British protection. Brunei has a population of 30,135. It is under the High Commissioner of British Malaya, but has a British Resident in control.

Sarawak lies along the northwestern coast of Borneo and covers 50,000 square miles, with a population of 490,585. Its capital is Kuching. Sarawak is called "the land of the white Rajah" because the natives, in 1842, gave the throne to an Englishman, whose descendants have held it ever since. The government is under the Commissioner of British Malaya.

INDO-CHINA

French Indo-China comprises an area of 260,034 square miles and a total population of 22,853,861. It is bounded on the north by China and Burma, on the east and south by the China Sea, and on the west by the Gulf of Siam, Thailand and Burma. Its capital is Hanoi.

The states making up the country are Cochin-China, Annam, Cambodia, Tonkin, Laos and Kwangchow. Each state

has a head, and the entire country is under a governor-general. In 1941, by forced agreement, the country was placed under the armed protection of Japan.

Annam has a native king with headquarters in the capital city, Hue. Cambodia also has a king whose seat of government is in Pnompenh. Cochin-China is a French colony with its capital at Saigon. Kwangchow is leased by France as a seaport; and Laos is part of a larger area extending into Thailand. The section belonging to France has its capital at Vientiane. The capital of Tonkin is Hanoi.

SMALLER TERRITORIES

Hongkong

Hongkong, an island off the coast of China, is a British crown colony. In the Hongkong territory are the Kowloon Peninsula and the New Territory, several small islands and peninsulas adjacent to the main island. The over-all area of Hongkong is 391 square miles and the population 1,050,256, of whom 23,096 are non-Chinese. The capital is Victoria. Hongkong has been a British post of great commercial and military value, being one of the great trans-shipment ports of the world.

Wei hai wei

Wei hai wei is an area on the north coast of Shantung, China, opposite the Kwantung Peninsula, which is leased by the British as a coaling and naval station. Its population is 155,000.

Macao

Macao is a Portuguese colony on Macao Island, near the mouth of the Canton River in China. Its area, 11 square miles, contains a population, mostly Chinese, of 160,000.

NETHERLANDS INDIES

The Netherlands Indies (Dutch East Indies) consist of an extensive group of islands along and south of the equator from Sumatra on the west to half of New Guinea on the east. These form the bulk of Malaysia. The total area of these islands is 735,267 square miles and the population numbers 67,000,000, of whom only about 250,000 are white. This vast population is divided among the islands as follows: Java and Madura, 46,000,000, Java being the most densely populated land mass in the world, with an average of 821 persons to the square mile; Sumatra, 9,000,000; Borneo, 2,400,000; Celebes, 4,600,000; and the remainder of the archipelago, 5,000,000.

These islands are rich in many products and are among the most valuable lands in the world.

The capital of the Netherlands Indies is Batavia, on the island of Java. Other islands of the group other than those mentioned are Moluccas, the western half of New Guinea, Bali, Lombok and Banka.

Australia

COMMONWEALTH OF AUSTRALIA

The Commonwealth of Australia, itself a continent, is a self-governing part of the British Empire. It is the only continent in the world that is one single political region. It includes, besides the continental mainland, the island of Tasmania across Bass Strait to the south of the southeastern corner of the continent; and several island territories in the vicinity.

Australia consists of six states and two territories as follows:

New South Wales: 309,432 square miles with a population of 2,770,348. Sydney, a city of 1,305,040, is its capital.

Victoria: 87,844 square miles, population 1,887,278. Melbourne, a city of 1,046,750, is the capital.

Queensland: 670,500 square miles, population 1,015,927; Brisbane is its capital.

South Australia: 380,070 square miles, population 597,045. The capital is Adelaide.

West Australia: 975,920 square miles, population 465,916; Perth is its capital.

Tasmania: 26,215 square miles, population 241,576. Hobart is the island capital.

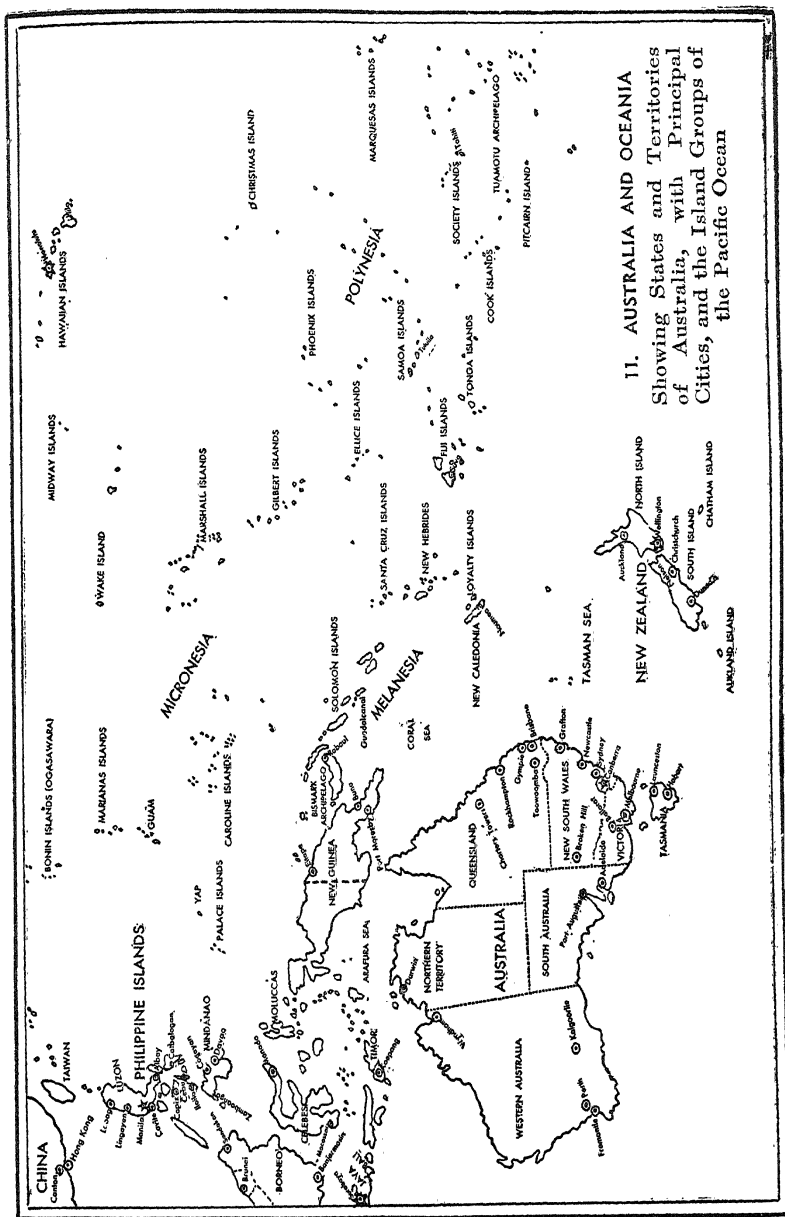
Northern Territory: 523,620 square miles, population 6,973. Darwin is the seat of administration.

Australian Capital Territory: 940 square miles, population 12,263. It includes Canberra, capital of the Commonwealth.

Australia is a land of strange animals and scenes. Among the animals seen nowhere else in the world are the koala, the platypus, the echidna, the wombat and the dingo. Some of the aboriginal tribes in the north are believed to be the most primitive in existence.

Australia has been a Dominion of the British Empire since 1901. A British Governor-General, a Prime Minister and a Parliament, consisting of a Senate and a House of Representatives, constitute the government. The capital of the Commonwealth is Canberra, in the special Australian Capital Territory.

Papua, or British New Guinea, is the southeastern part of the island of New Guinea, an area of 90,540 square miles with a population of 337,000. The Louisiade Archipelago is part of Papua. The European population amounts to only 1,822. The capital city is Port Moresby. The area is British territory administered by Australia.



11. AUSTRALIA AND OCEANIA
Showing States and Territories
of Australia, with Principal
Cities, and the Island Groups of
the Pacific Ocean

Territory of New Guinea, the northeast quarter of the Island of New Guinea, was formerly German New Guinea, but was placed under Australian mandate by the League of Nations after the First World War. It includes islands of the *Bismarck Archipelago* and the former *German Solomon Islands*. The total area of this territory is about 93,000 square miles and the population, almost wholly native, is 666,000. Of these 4,606 are whites.

Norfolk Island is 13 square miles of land, 800 miles east of Australia. It has a population of 983. The island was taken over by Australia in 1913 and is administered by the Commonwealth.

Nauru Island, a former German area, was mandated to Britain by the League of Nations. It is 8 square miles and has a population of 3,400.

Oceania

Many important world areas are not parts of any one continent, but stand off by themselves in the seas. The most noteworthy of these are the following:

NEW ZEALAND

New Zealand, a self-governing British Dominion, is situated in the South Pacific Ocean some 1,200 miles southeast of Australia. The political territory includes the following land bodies:

ISLAND	AREA
North Island	44,281 square miles
South Island	58,092 " "
Stewart Island	670 " "
Chatham Island	372 " "

North and South Islands are separated by Cook Strait.

In addition to the four major islands, others within the

geographical boundaries of New Zealand include Campbell Island, Solander Island, the Three Kings, Auckland, Antipodes, Bounty and Snares islands. All of these cover only 307 square miles. A group of islands annexed to New Zealand are Cook, Kermadec, Niue, and a few other small areas.

New Zealand administers, under mandate from the League of Nations, Western Samoa, including Savaii and Upolu. It also aids in the administration of Nauru and has control of Tokelau, or Union, Islands. Consequently, New Zealand may be considered to extend from the tropics to Antarctica.

The country, discovered in 1642, was made a British Dominion in 1907. Its capital is Wellington. The population, 1,640,901, includes 90,980 Maoris, the aborigines.

New Zealand is administered by a governor-general appointed by the British Crown, and a General Assembly. Chief cities are Wellington, Auckland, Christchurch, and Dunedin.

The *Auckland Islands*, south of New Zealand, are uninhabited. *Campbell Island*, also south of New Zealand, has an area of 71 square miles. The rocky *Antipodes* are southeast of Dunedin. *Kermadec Islands*, northeast of New Zealand, are noted for their unusual vegetation. *Cook Islands*, also called the Hervey Islands, are northeast of Auckland and cover 150 square miles. They have a population of 13,000. Included in this group are Rarotonga, Mangaia and Penrhyn. *Niue*, often called Savage Island, covers 100 square miles and has a population of about 4,000. It is situated north of Tonga. *Tokelau Islands* cover 4 square miles and have a population of 1,191. *Nauru* is a phosphate island supporting a population of 2,100. It was formerly German, but is now administered by New Zealand, the United Kingdom and Australia. *Manahiki Islands*, a group east of Tokelau, include Suvarrow and Caroline Islands.

The *Ross Sea* and adjacent territory of Antarctica are controlled by New Zealand. *Western Samoa*, a former German colony, includes the islands of Savaii, Manono, Apolima, Opolu, Fanuatapu, Manua, Nuutele and Nuulua. These extend over 1,210 square miles of sea and have a population of 61,429. Opolu is the burial place of Robert Louis Stevenson.

BRITISH OCEANIA

The *Fiji Islands* are in the South Pacific due east of northern Australia. In this group are from 200 to 250 islands covering 7,083 square miles with a total population of 215,030, of whom 4,259 are Europeans. The islands are administered as a British crown colony with a capital at Suva. In the Fijis are Viti Levu, Vanua Levu, Taveuni, Ovalau and Koro.

The *Tonga Islands*, sometimes called Friendly Islands, are in an archipelago northeast of New Zealand and are governed as a British protectorate. They include Tongatabu, Vavau and Hapai. Altogether there are 256 square miles of land surface in the islands, which have a population of 34,130. The capital is Nukualofa.

The *Solomon Islands*, a British protectorate, contain 15 large islands and four groups of small islands due east of New Guinea. They cover 375,000 square miles and have a population numbering 93,415; 497 are Europeans. Included in the group are Malaita, Marovo, Guadalcanal and San Cristobal.

Santa Cruz Islands (Queen Charlotte Islands) are included in the Solomon protectorate. They lie to the southeast. In this group are Duff, Matenna, Analogo, Tinakula and other small islands.

The *New Hebrides* comprise about 40 small islands south of the Santa Cruz group and covering a total area of 5,500

square miles. The population is 60,000. These islands are administered jointly by France and Great Britain from Vila, on Efate Island. Other islands of the group are the Banks group, Tanna, Eromanga, the Shepherd group, Api, Malekula and Espiritu Santo.

Gilbert and Ellice Islands Colony include the Ellice Islands, Fanning, Washington, Ocean, Christmas, the Phoenix Group and the Gilbert Islands. Their total area is 180 square miles, population 32,838. The islands are administered as a British colony.

Pitcairn Island, far to the west of Cook Islands, was discovered in 1767, and was first inhabited 23 years later when the mutineers from the British ship "Bounty" landed and established a colony. Their existence on the island was not known until 1808. In 1856 the population, then 192, was moved to Norfolk Island. A total of 40 went back, and the present population is 209, living in an area of 2 square miles. It is administered as a British colony.

A few other isolated small islands in the Pacific are under British rule. These include *Christmas, Jarvis, Malden, Washington* and *Starbuck*.

FRENCH OCEANIA

New Caledonia is east of Queensland, Australia, and consists of the island of New Caledonia and its dependencies, among which are *The Isle of Pines*, the *Wallis Archipelago*, *Loyalty Islands*, *Huon Islands*, *Fortuna* and *Alofi*. The administration of all is handled from Numea, on New Caledonia. The central island is 8,548 square miles and has a population of 53,345. About 3,600 are imported laborers and 2,300 are convicts. The Loyalty Islands have a population of approximately 11,000.

Tahiti serves as the administrative center for a large

group of islands scattered through the Pacific Ocean. Among these are the *Society Islands*, the *Marquesas*, the *Tuamotu Archipelago*, the *Leeward Islands*, the *Tubuai Islands* and *Rapa*. The capital of Tahiti, and seat of administration, is Papeete. Area of all these islands is 1,520 square miles and the population 39,920. Of this number 26,000 are natives.

PORTUGUESE TIMOR

This is the eastern part of the Island of Timor, off the northern coast of Australia. The Portuguese section covers 7,330 square miles, with a population of 463,796. The capital is Dilli.

The Arctic and Antarctica

The *North Pole* area is largely unexplored, although several parties have reached the pole and a number of expeditions have flown over it. So far as is known the only land around the North Pole is a few scattered islands. Although several countries claim them, they are of no great significance at present.

The continent of *Antarctica*, at the South Pole, is a vast land mass, covering some 5,000,000 square miles. Its political status is unsettled. The area is divided into four quadrants: Enderby, Victoria, Ross and Weddell. The Falkland Islands Dependency, under British control, covers most of the Weddell quadrant. The Ross quadrant is included within the British Empire as the Ross Dependency, and is administered by New Zealand. The edge of South Victoria Land, facing King Edward VII Land across the Ross Sea, is also British controlled.

A small sector between the Ross Dependency and the Falkland Islands Dependency was claimed for the United States by Admiral Richard E. Byrd. It includes some of the

Rockefeller and Alexandra Mountains and part of Marie Byrd Land.

England claims Graham Land, south of Cape Horn, South America.

Norway has staked out some sections of Antarctica, but they are unsettled claims. An area of 231,660 square miles in Crown Princess Maerta Land, which Norway had claimed, was also claimed by Germany as a result of an expedition in 1939.

Despite these various contentions, the geographical knowledge of Antarctica is still slight. Mapping of its political areas must await further exploration.

Africa

The once "Dark Continent" of Africa, a huge territory of primitive tribes which roamed about in search of food and hospitable terrain, is now, with some exceptions, a continent owned or controlled by political units of other continents. It has been a rich prize for colonization and exploitation for more than a generation, and today the larger part of its land is held by European powers either directly or under some form which gives the controlling country commercial rights and the authority to exploit natural resources.

GREAT BRITAIN IN AFRICA

The *Union of South Africa*, often called simply South Africa, is a large area at the southern end of the continent, consisting of the Cape of Good Hope, Natal, the Transvaal and the Orange Free State. The Union also administers the former German Southwest Africa area under mandate from the League of Nations. South Africa, not including Southwest Africa, is 472,550 square miles, with a total popula-

tion of 10,160,000. Two small areas within the Union, Basutoland and Swaziland, are not part of the Union.

The Union of South Africa is a Dominion within the British Commonwealth of Nations. The legislative power rests with a Parliament. Each province has its own provincial council.

Transvaal, with a population of 3,535,100, has its capital at Pretoria, which is also the capital of the entire Union. Cape of Good Hope, population 3,635,100, is the largest of the provinces. Its capital is Cape Town. The smallest province is Orange Free State, with 790,800 people. Its capital is Bloemfontein. Natal's capital is Pietermaritzburg.

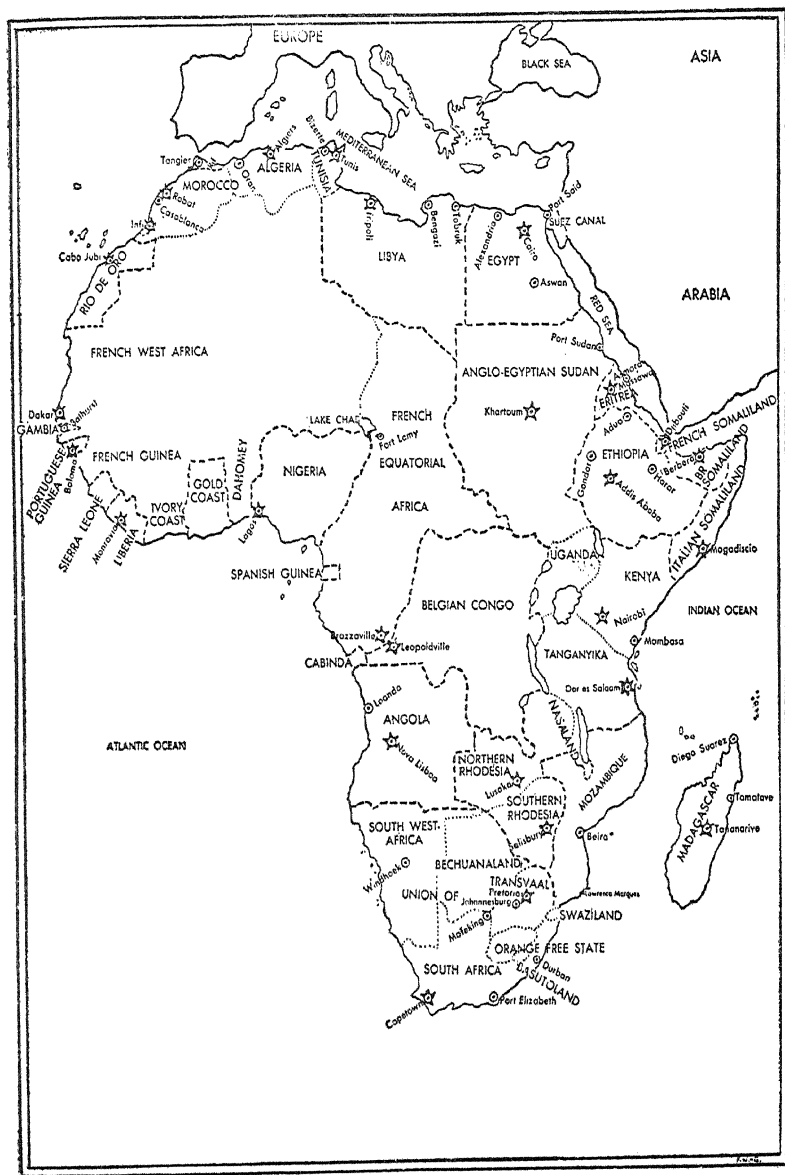
South Africa is the richest area in the world in gold and diamonds. It is estimated that 35% of all the world's gold is mined here and that about 82% of the employed population work in some phase of gold production. Something over 1,000,000 carats of diamonds are produced yearly.

Southwest Africa was annexed by Germany in 1884 and conquered by the Union of South Africa in 1915. In 1920 it was mandated to the Union by the League of Nations. It stretches along the Atlantic coast from Angola to the Orange River. The chief towns are Windhuk and Luderitz.

Basutoland, with a population of 660,650, is bounded by Natal, the Orange Free State and Cape of Good Hope. It is governed as a crown colony and is reserved strictly for the Bantus, South African natives. Whites are not allowed to own land. The capital is Maseru.

Swaziland, covering 6,705 square miles along the border of Mozambique and reaching into Transvaal, has a population of 156,715. It is governed as a British protectorate. The capital city is Mbabane.

Bechuanaland is a territory of some 275,000 square miles north of the Union of South Africa, between Southern Rhodesia and Transvaal on the east, and Southwest Africa



12. AFRICA

Showing Political Boundaries, with Capitals and Principal Cities

on the west. The population, 265,756, is made up largely of Bantu natives. The country is undeveloped, consisting of vast wilderness and the great Kalahari Desert. It is ruled as a British protectorate.

Southern Rhodesia lies in southern Africa. The population is 1,435,560, of whom only 62,330 are Europeans. In 1923 the government was taken out of the hands of the British South African Company, where it had rested since 1898, and the territory became a crown colony under direct British control. The capital of the colony is Salisbury. The region is rich in gold and other minerals.

Northern Rhodesia is a sprawling country covering 290,320 square miles bounded on the north by the Belgian Congo and Tanganyika. The population is 1,376,325. Of these 9,900 are Europeans. The capital is Lusaka. The colony was taken over from the British South African Company in 1924 and made a British crown colony.

Nigeria lies along the Gulf of Guinea and is bounded on the north by French West Africa, on the east by French Equatorial Africa and Cameroons, and on the west by French West Africa. The colony is in the basin of the lower Niger River. The capital is Lagos. The government is divided into the Colony of Nigeria and the northern and southern provinces of the Nigeria Protectorate. The entire area is ruled by a governor appointed by the British crown.

British Cameroons is part of the former German protectorate of Kamerun, which was divided between the British and the French after the First World War. The British area covers 34,081 square miles and has a population of 868,637. It lies between Nigeria and French Cameroons and has a coastline on the Gulf of Guinea. The seat of government is Bueca. The colony is administered for the British under mandate by the Governor of Nigeria.

Gambia is a British protectorate consisting of the island

of St. Mary's, at the mouth of the Gambia River, and a strip six miles wide on each side of the river for a distance of 200 miles inland. The total area of the protectorate is 4,068 square miles and the population 199,520. Bathurst, on St. Mary's Island, is the capital. The area is administered by a governor appointed by Britain. Gambia is a colony, while the strip along the river is held as a protectorate.

The *Gold Coast* in western Africa is 78,802 square miles, bounded on the north by French West Africa, on the east by British Togoland and on the south by the Gulf of Guinea. The Gold Coast proper is only a strip along the coastline, named for its rich supply of gold-bearing sands. However, included in the administrative area is Ashanti, due north of the Gold Coast, and the Northern Territories, to the north of Ashanti. The total population of these areas is 3,700,267. The capital is at Akkra. The Gold Coast is a British possession, while Ashanti and the Northern Territories are administered as British protectorates from the Gold Coast. The capital of Ashanti is Kumasi.

Togoland, with a population of 391,473, is the British section of the former German colony of Togoland which was divided between the French and British after the First World War. It is governed as a mandated colony by the Gold Coast, and adjoins the Gold Coast on the east.

Sierra Leone is a stretch of coast between French Guinea on the north and west and Liberia on the east. Its shore is on the Atlantic Ocean. The area has been in British hands since 1767. The capital is Freetown, one of the finest ports in West Africa. The area of the coastal region and the Sierra Leone protectorate to the north is 27,925 square miles and the population 1,768,480. All is administered by a governor for the British crown.

Kenya, or Kenya Colony, is in East Africa, bounded on the north by Ethiopia and on the south by Tanganyika. It

is 224,960 square miles in area and has a population of 3,500,352. Nairobi is Kenya's capital.

Kenya is partly a crown colony, partly a British protectorate. The protectorate consists of a portion of the coastal region extending about 10 miles inland, and the islands of Mombasa, Lamu and others leased from the Sultan of Zanzibar. The rest is the crown colony. The country is largely undeveloped—the home of roving native tribes and an untold amount of big game.

Tanganyika, to the south of Kenya, has a long coastline on the Indian Ocean. It is bounded on the south by Mozambique and Northern Rhodesia, and on the west by the Belgian Congo. Its population, 5,270,484, lives in an area of 360,000 square miles. The capital is Dar-es-Salaam.

Tanganyika was formerly German East Africa, but was taken over by Great Britain in 1918. The League of Nations divided the original vast colony of Germany among Britain, Belgium and Portugal. The section mandated to Britain is administered by a governor. The country is one of the world's famous hunting grounds for big game, including the gorilla.

The *Uganda Protectorate*, under British control, lies to the south of the Anglo-Egyptian Sudan and north of Tanganyika. Lake Victoria is part of its southern and eastern borders. Other large lakes, including Kiogu, Edward, Albert and Salisbury, are in the area. Uganda covers 93,381 square miles and has a population of 3,790,689. Of these only about 1,800 are Europeans and 13,000 Asiatics. The capital is Entebbe.

Uganda is the elephant country of Africa. Within it are herds of more than 20,000 elephants.

The *Nyasaland Protectorate* was, until 1907, British Central Africa. It is a long, narrow strip south of Tanganyika. Its area of 37,374 square miles contains a population of 1,679,977, with the capital at Zomba.

Zanzibar, an island 23 miles off the coast of Tanganyika, with a population of 137,741, was obtained from Germany in 1890 through a trade in which Germany received Heligoland, the North Sea island, in exchange. Although Zanzibar is governed by a sultan, it is administered by a British resident. Included with Zanzibar for administrative purposes is the island of *Pemba*, 30 miles northeast of the main island. The capital of the whole area is Zanzibar city.

British Somaliland, along the Gulf of Aden, covers about 68,000 square miles with a population of 344,700. This is a protectorate under British administration with the capital at Berbera, a city of 30,000.

Mauritius, formerly Ile de France, is in the Indian Ocean. The capital city is Port Louis. The administrative area of which Mauritius is the center includes Rodriguez, the Chagos Archipelago, Cargados and the Carayos or St. Brandon islets and shoals. These islands lie about 500 miles east of Madagascar. They all belong to Great Britain.

Seychelles, an archipelago in the Indian Ocean near Mauritius, comprises more than 100 small islands. The total area is not more than 156 square miles and the population 32,015. Among the larger islands are Amirantes, Cosmoledo and Aldabra. The capital is Victoria, a port and coaling station.

St. Helena is an island in the South Atlantic, about 1,200 miles off the coast of Africa, with an area of 47 square miles. Its capital is Jamestown. The island was made famous as the scene of Napoleon's exile. It is now an important naval coaling station.

Ascension, 34 square miles, lies in the Atlantic some 700 miles northwest of St. Helena. It has a population of 154, is administered by the British colony on St. Helena and is a fortified naval base. Its sea turtles are famous.

Tristan da Cunha is a group of volcanic islands, 12 square

miles in area, about midway between Africa's Cape Colony and South America. This is called one of the loneliest places in the world. There are about 165 persons on the islands, descendants of shipwrecked sailors and soldiers from St. Helena. Among the group are Tristan, Inaccessible, Nightingale and Gough islands.

FRANCE IN AFRICA

Algeria stretches along the Mediterranean Sea for a distance of 600 miles between Morocco on the west and Tunis on the east. It is divided into the Northern and Southern Territories.

The Northern Territory includes the Mediterranean coast and an area to the south, 80,117 square miles. It has a population of 6,592,033. The territory is divided into three departments—Algiers, Oran and Constantine—each of which sends one senator and three deputies to the National Assembly, the legislative body for Algiers. The majority of the population are native Berbers with Arabian blood. Chief cities are Algiers, Oran, Constantine and Bone.

The Southern Territories extend down to French West Africa. They include Ain-Sefra, Ghardaia, Tugut and Oases, an area of 767,435 square miles. The population, 642,651, is mostly nomadic. This area is a separate French colony under a military command, with a governor in authority.

The capital of the entire Algerian area is the city of Algiers.

Tunis was formerly one of the Barbary States under Turkish control, but came under the French in 1881. The country is 48,313 square miles bounded on the north by the Mediterranean Sea, on the east by the Mediterranean and Libya,

and on the west by Algeria. Its population of 2,608,313 is largely Arab and Bedouin. The capital is Tunis.

Although ruled by a native, the country is under French protection and control. Its strategic position across the sea from Sicily makes it important commercially and militarily. Tunis, the city, is almost exactly on the site of ancient Carthage.

America fought the Barbary pirates off the Barbary Coast of North Africa—Tunis and Morocco—in the early part of the nineteenth century. The pirates were endangering freedom of the seas.

Morocco, meaning "the farthest west," is divided into three zones, French, Spanish and the neutral zone at Tangier. The French section is bounded on the north and west by Spanish Morocco and the Atlantic Ocean, on the east by Algeria, on the south by Algeria and Rio de Oro.

The sultan lives at Rabat and is controlled by French officials under the authority of a protectorate. The population of this area is about 6,000,000. Chief cities are Fez, Taflelt and Marrakesh.

French West Africa consists of several French colonies and covers a large part of the western "bulge" of the continent. The total area is 1,815,698 square miles, and the population 14,944,830. Dakar, the extreme western point of Africa, is the capital of the entire area. French West Africa includes about one-sixth of the whole continent.

The seven colonies in French West Africa are: *Senegal*, including the Dakar district, with a population of 1,666,374, capital at St. Louis; *Mauritania*, covering 323,310 square miles and a population numbering 370,764; *French Guinea*, 96,886 square miles and a population of 2,065,527, having its capital at Konakri on Tombo Island; *French Sudan*, 590,966 square miles and a population of 3,635,073, with a capital at Bamako; *Ivory Coast*, covering 184,174 square

miles with a population of 3,981,459, capital at Bingerville; *Dahomey*, 43,232 square miles, a population numbering 1,289,128, capital at Porto Novo; *Niger*, 499,410 square miles, population of 1,809,576, having its capital at Zinder. Two other areas included in French West Africa are *Upper Volta*, having its capital at Ouagadougou, and *French Togo*, a French mandate over 20,000 square miles of former German Togoland and administered now from Dahomey, with a capital at Lome.

The area is under a French governor who administers all the colonies from Dakar.

French Equatorial Africa, often referred to as the French Congo, is bounded on the north by Libya, on the east by Anglo-Egyptian Sudan and the Belgian Congo, and on the west by the Atlantic Ocean, Nigeria and French West Africa. The French began acquiring this territory in 1841, and have increased it by exploration and occupation.

The area covers 959,256 square miles in the heart of Africa and has a population of 3,418,066. The capital is Brazzaville.

Colonies constituting Equatorial Africa are: *Gabun*, population 408,516, having its capital at Libreville; *Middle Congo*, covering 166,069 square miles with a population of 744,503, capital at Brazzaville; *Ubangi-Shari*, 238,767 square miles with a population of 833,041, having a capital at Bangui; and *Chad*, 461,202 square miles, population numbering 1,432,006.

Cameroon is the French part of the former German colony of Kamerun, which was mandated to France by the Treaty of Versailles. It is bounded on the north by Nigeria, on the east by French Equatorial Africa, and on the west by the Gulf of Guinea and Nigeria. The French Cameroon capital is Yaounde; the population is 2,516,623, of which 3,106 are Europeans.

In 1921 Cameroon was constituted as an autonomous territory and is now governed by a French commissioner. It has two excellent seaports, Douala and Kibiri.

French Somaliland is a protectorate on the east coast of Africa, at the mouth of the Red Sea. It covers 8,492 square miles and has a population of 44,240. Its capital city is Jibuti, an excellent port on the Gulf of Aden.

Madagascar, one of the world's largest islands, is off the east coast of Africa. The island is 241,094 square miles in area and has a population of 3,797,936, including Mayotte and Comoro Islands. The capital city is Tananarive.

This island became a French protectorate in 1885 and was made a colony in 1896. The colonial government also administers the affairs of the archipelago of the Comoro Islands and Mayotte.

Réunion is an island in the Indian Ocean, about 420 miles east of Madagascar. It has belonged to France since 1643. The island has a population of 208,858, mostly of French extraction. The capital is at Saint-Denis.

PORTUGAL IN AFRICA

Mozambique, also called Portuguese East Africa, lies along the southeast coast opposite Madagascar. It is bounded on the north by Tanganyika, Nyasaland, and Northern Rhodesia, on the south by the Union of South Africa and Southern Rhodesia. Its population is 4,995,750; the capital city is Lourenço Marques. The area is governed as a colony of Portugal.

Angola, or Portuguese West Africa, is on the southwest coast, with a long shore on the Atlantic Ocean. The country, with a population of 3,484,300 natives and 59,000 Europeans, has been under Portugal since 1575 and is governed

now by a high commissioner with broad powers. Its capital is Nova Lisboa (New Lisbon).

Kabinda is a territory of about 3,000 square miles on the African west coast north of the Congo River. It is not officially part of Angola, being separated from that colony by the coastline of Belgian Congo.

Portuguese Guinea is a small colony on the west coast of Africa just north of French Guinea and south of Senegal. It has a population of 415,220.

The Islands of *Saint Thomas* (San Tome) and *Principe* are about 125 miles west of the African coast in the Gulf of Guinea. They cover 384 square miles and have a population of approximately 59,000. As a Portuguese province they are administered by a governor.

The *Cape Verde Islands* lie in the North Atlantic some 300 miles west of Cape Verde, Africa's most western point. They are 15 in number, with a population of 162,055. The capital is Praia.

ITALY IN AFRICA

Libya extends along the Mediterranean Sea from Tunisia on the west to Egypt on the east. On the south it touches French Equatorial Africa and French West Africa. The colony is divided into four provinces: Tripoli, Misurata, Benghazi and Derna. In the south is a military territory with jurisdiction over the southern sections of the provinces.

Libya covers a total area of 679,358 square miles and has a population of 888,401. It has two capitals, at Tripoli and Benghazi. The governor is limited to administrative powers, all legislative matters being reserved for Rome.

Eritrea is a section of east Africa lying along the Red Sea from the Anglo-Egyptian Sudan to French Somaliland and reaching inland to the border of Ethiopia. Its 15,754 square

miles have a population of 600,573, of whom only 4,188 are Italians. The capital city is Asmara, the chief port Massawa. Included as part of Eritrea are the Dahlak Archipelago and near-by islands in the Red Sea.

Italian Somaliland, 194,000 square miles, stretches along the Indian Ocean from the Gulf of Aden south to Kenya Colony, a distance of more than 1,000 miles. The population of the colony is 1,300,000. Mogadishu is the capital.

SPAIN IN AFRICA

Spanish Morocco is part of the African coast north of French Morocco, formerly in the Shereefian Empire held by Spain. Included in the Spanish protectorate are the *Ifni* conclave, a small section cut from French Morocco, and the Cape Juby region on the Atlantic Ocean. Also under direct Spanish control are Melilla, Ahucemas, Penon de la Gomera and the Chafarina Islands. The area of Spanish-controlled Morocco is 18,360 square miles and the population about 600,000.

Tangier is a seaport of 60,000 inhabitants at the extreme northwest tip of Africa, on the Atlantic Ocean. Although the area, about 225 square miles, is an international settlement, it is policed by Spain under an agreement with Great Britain not to fortify it. At present Spain is in military control.

Rio de Oro stretches along the Atlantic coast of Africa from French Morocco to French West Africa. This includes the Spanish colony of Rio de Oro, the Cape Juby Territory to the north, and other small territories. The population of the entire area is approximately 100,000. The capital is Villa Cisneros.

Spanish Guinea, often referred to as the Muni River Settlements, or Rio Muni, is cut from French Equatorial Africa. Included in this colony is the island of Fernando Po and the

small islands of Annobon, Corisco and Elobseys. The capital is Santa Isabel, on Fernando Po.

BELGIUM IN AFRICA

Belgian Congo, or Congo Free State, became a Belgian possession in 1907 as a result of the interest shown by King Leopold II in its economic possibilities.

The Congo covers 902,082 square miles in the heart of the African continent. It is bounded on the north by French Equatorial Africa and the Anglo-Egyptian Sudan, on the east by Uganda, Tanganyika and Northern Rhodesia, on the south by Northern Rhodesia and Angola, and on the west by Angola, the Atlantic Ocean and French Equatorial Africa. The population totals 10,356,191. Only 25,200 are whites.

The Congo capital is Leopoldville. The country has a short coast on the Atlantic at the mouth of the Congo River. About 90% of the world's radium is produced in this area. The region also includes the Ruanda and Urundi districts, held by Belgium under mandate. The diamond fields in the Congo, next to those of South Africa, are the most productive in the world.

Ruanda and *Urundi*, formerly districts of German East Africa, are part of the Belgian Congo by mandate of the League of Nations. The districts cover 20,535 square miles and contain 3,775,335 people, only 1,404 Europeans. Both districts are administered as part of the Belgian Congo by a governor stationed at Astrida.

ANGLO-EGYPTIAN SUDAN

This section of Africa is administered by a governor-general appointed by Egypt with the consent of Great

Britain; the British and Egyptian flags fly together over the land.

The Sudan is bounded on the north by Egypt, on the east by the Red Sea and Ethiopia, on the south by Kenya Colony, Uganda and Belgian Congo, and on the west by French Equatorial Africa and Libya. Its 969,600 square miles have a total population of 6,342,477. The capital is Khartcum. The inhabitants are Negroes, Arabs, and a mixture of the two races known as Nubians.

EGYPT

Egypt is the country occupying the northeastern corner of Africa, on the Mediterranean Sea and the Red Sea. The land covers 383,000 square miles, with a population of 15,920,703. Its capital is Cairo, near the mouths of the Nile River.

The Nile flows through Egypt for 960 miles. By scientific use of the waters, by King Mena about 4000 B.C., more than 7,600,000 acres of land have been made one of the richest agricultural regions in the world. The Nile Delta is a fertile farming area.

Egypt became an independent state in 1922, the Sultan became king and took authority with a Parliament consisting of a Senate and Chamber of Deputies. The deputies and three-fifths of the senators are appointed by the king.

By treaty agreement, Great Britain keeps an armed force in Egypt to protect the Suez Canal, which flows from the Red Sea to the Mediterranean. This force is to be withdrawn when Egypt has military strength enough to protect the canal. Great Britain also has the right to use the ports of Alexandria and Port Said as naval bases.

Leading cities of Egypt are Cairo, Alexandria, Port Said, Tanta, Mansura, Suez and Damietta.

ETHIOPIA

Ethiopia, often called Abyssinia, is a country of 350,000 square miles in northeastern Africa. It is bounded on the north by Eritrea and British Somaliland, on the south by Italian Somaliland and Kenya Colony, and on the west by the Anglo-Egyptian Sudan. It has a population of 10,000,000, and the capital is Addis Ababa.

Ethiopia is a kingdom with a monarch who claims direct descent from Menelik, the son of King Solomon and the Queen of Sheba. A land of great potential agricultural and industrial power, Ethiopia is largely undeveloped, although some attempt to modernize it has been made in recent years.

LIBERIA

Liberia, along the Guinea coast of Africa from Sierra Leone to the Ivory Coast and extending inland 75 to 150 miles, was founded in 1822 by American Negro freedmen and their white friends as a center for repatriation of the Negro. In 1847 it was made a republic with a constitution modeled on that of the United States. This provided for a president elected for 8 years, a Senate and a House of Representatives. All voters must be of Negro blood and own land.

The country has a population of approximately 1,500,000, entirely of African blood. About 100,000 living along the coast are westernized. There are 20,000 American Negroes in Liberia. The land has some 10,000,000 rubber trees. The capital of Liberia is Monrovia.

ECONOMIC GEOGRAPHY

The life of modern man depends upon his ability to utilize the natural resources of the earth. Primitive man could live on what he raised by his crude methods, what he could kill or catch, and by using the rocks and stones which lay about him. Later he learned to dig up certain metals and mold them into weapons or utensils. But, because his life was confined to the tiny area in which he lived and was determined by what he could obtain by crude methods, he was bound to his primitive existence.

Modern man has the entire world to provide the needs of his complicated life. He eats foods which have come from all lands, wears clothes made from materials grown in far corners of the earth, builds his home, carries on his trade or profession and enjoys his amusements through the trade between his home area and other parts of the world.

To maintain this life, trading has become a great enterprise. Huge fleets of "tramp" ships ply from port to port, loading and unloading cargoes. Many countries maintain large merchant marines, fleets of ships operated for the sole purpose of transporting cargoes from all parts of the world to the mother country and carrying to these far ports the products of the mother country.

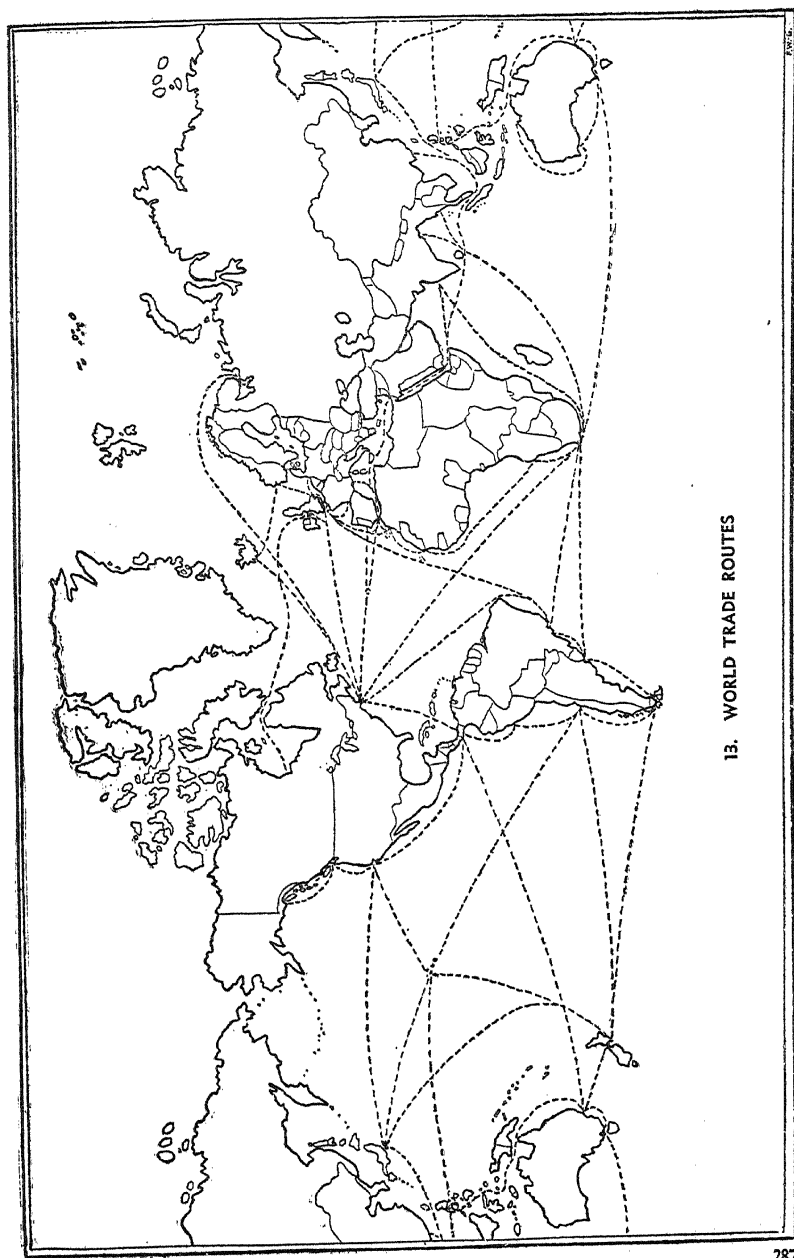
TRADE AND TRADE ROUTES

The "Great Circle" is the principal sea route across the North Atlantic, and a similar path extends across the North Pacific. These routes follow curved courses around the earth from North America to Europe, and from North America to the Far East. The Atlantic "Great Circle" curves from New York to England, while the Pacific "Circle" reaches from San Francisco to Japan. Vast amounts of materials have been shipped over these routes. The "circular" aspect of the routes arises from the earth's curvature, which gives the map line an appearance of being bent.

Many countries have large trading companies which operate throughout the world to facilitate trade for the home nation. Amtorg is such a company operating for Soviet Russia and reaching into all parts of the world. The East India Company did much to establish England's dominating position in India. Founded in 1599, it was chartered in 1600 by Queen Elizabeth to carry on trade and commerce as well as exploration. Many of the "Merchant Adventurers" were connected with this company. These men were explorers who sought new trade routes; they were interested primarily in discovering the most efficient route between Europe and India via the west.

The most direct sea route from Great Britain to India is through the Strait of Gibraltar and the Mediterranean Sea to the Suez Canal, down to the Indian Ocean and across to India. From London to Bombay the distance is 6,332 miles.

The Atlantic Ocean is the great trade route of the world. More than half of all peace-time trade is carried over these waters. The busiest path is that between the United States and Europe, and is but one of many busy ones which cross and criss-cross between the four continents bordering on the Atlantic.



13. WORLD TRADE ROUTES

To facilitate trade, important canals have been dug. The Panama Canal, for example, has shortened the route from New York to South America's west coast by some 3,700 miles. Formerly vessels had to go around Cape Horn. The Suez Canal, connecting the Mediterranean with the Red Sea, has made the route from Europe to India and the Far East thousands of miles shorter. The Sault Ste. Marie Canal, commonly called the "Soo," links Lake Superior and Lake Huron in the American Great Lakes. This is the busiest trade route in the world, carrying more water traffic than either the Panama or the Suez Canals. Its commerce consists largely of metal ores from the Lake Superior region, automobiles and machinery from Detroit and other American cities, and grain from Canada.

Ingenuity has developed ships especially suited for carrying certain products. Tankers have been built for oil, and colliers for coal. These ships are designed to carry the maximum load with the greatest efficiency. "The Great White Fleet," for example, carries fruits from Central America. It is operated by the United Fruit Company and sails mostly between the Latin-American countries and the United States. Many "tramp" steamers transport coffee, rubber, food products, minerals and tropical timber, such as mahogany, from Latin America to the United States and Europe.

The Grace Line is another fleet of ships used in the trade between the United States and both coasts of South America. Several large companies run great fleets between the United States and European ports. The Cunard-White Star Line operates between the United States and Great Britain, the United States Line to European Atlantic ports, and Lloyd-Triestino between the United States and Mediterranean ports in peace-time commerce.

"Empress" liners have been well known on the Pacific. Operated by the Canadian-Pacific Steamship Lines, they

have carried on trade between North American and Asiatic ports.

A summer route is being developed to carry products between the United States and Russia's northern ports. This course runs through the Bering Strait and the Arctic Ocean to European Russia. To keep it open, icebreakers are stationed at intervals along the shipping lane.

Lately a new form of trans-ocean transport has been developed. This is ocean air travel. What it will mean to trade in the future is now unknown, but great strides are being made as larger planes are built and more cargoes are carried by air. Pan American Airways has developed routes over both the Atlantic and Pacific; its planes fly between the United States and Europe, South America, and the Far East.

An extensive trade is carried on over inland waterways. The Mississippi River in the United States carries a large volume along its course from the Great Lakes to the Gulf of Mexico. It has many tributaries, rivers which flow into it and bring vessels from other parts of the country. Numerous great cities have sprung up along the banks of the Mississippi and its tributaries as shipping centers.

The Nile in Egypt, the Danube of southeastern Europe, and the Rhine in Germany are important inland water routes. In South America the principal river trade is along the Amazon and Orinoco rivers in the north, and the River Plate and its tributaries in the south. In China the Yangtze is the principal trade route. The river is lined with junks, small craft propelled by wind or sweeps, carrying all kinds of products and food between the cities and villages.

Still another means of commercial transportation is the railroad. Wherever tracks have been laid, new commercial communities have developed. Some great railroad lines connect far distant places. The Trans-Siberian Railway travels

over vast stretches of forbidding country to connect Moscow with Vladivostok, the Soviet port on the Pacific Ocean. The South Manchuria Railway is an economic-political organization used by Japan in carrying out economic penetration into northern China. The railroad owns mines, factories and ships, and wields great political power. Mitsui is also one of the largest trading and industrial organizations of Japan. The company owns shipping lines, mines, mills, banks and other enterprises important to Japan's foreign and domestic commerce.

Regardless of this remarkable development of modern transportation, a great deal of the world's commerce is still carried on by the primitive methods of human or animal power. In the hinterlands of Asia goods are transported by human porters. Their caravans travel the mountain routes of west China and Tibet where passage is difficult and there are no railroads. In North Africa camel caravans are used as they were thousands of years ago, and in many of the more undeveloped countries of Europe and Asia, the ox, dog and elephant carry products from place to place.

FOOD

The chief cereal food of western man is wheat. The grain has been grown for thousands of years and is, perhaps, the oldest agricultural product known. It is raised in practically every climate and under almost all conditions, being a hardy plant. Although it seems to grow best in the Northern Hemisphere, it is found also near the equator and at the Arctic Circle. It can be grown at sea level or high in the mountains, on the plains or among the hills, and in almost all kinds of soil.

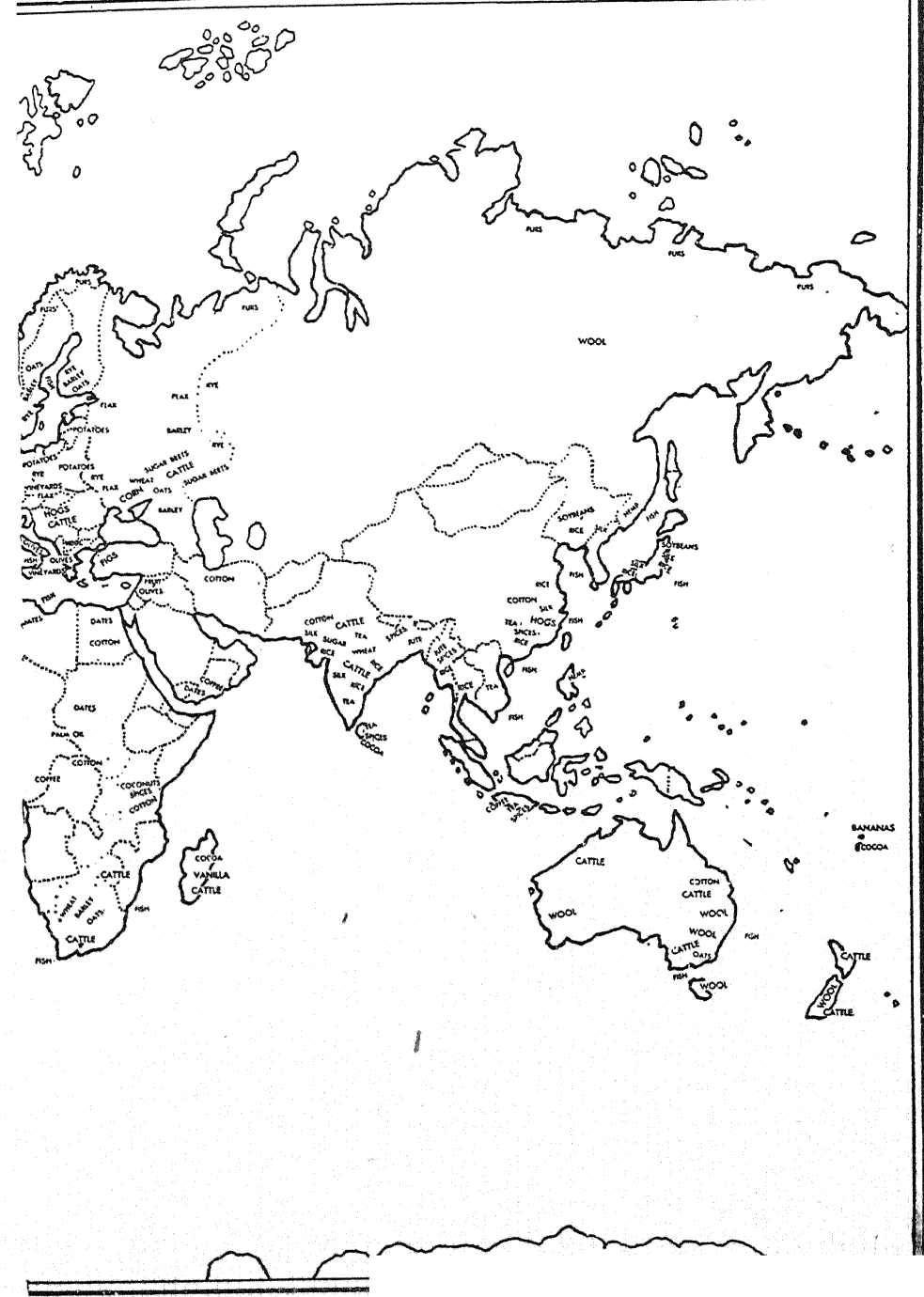
However, the climate and soil of the Mid-Western United States and Canada are the best for wheat. In the United

MAPS OF THE WORLD'S ECONOMIC RESOURCES

The map on the two following pages shows the important resources of *Food and Textiles* in all parts of the world. The resources of *Minerals, Metals, Coal, and Petroleum* are shown in the map on pages 314 and 315. The resources of *Timber, Tobacco, and Rubber* are shown in the map on pages 324 and 325.



14. THE WORLD'S RESOURCES



OF FOOD AND TEXTILES

States vast quantities of wheat are produced in North Dakota, South Dakota, Nebraska, Illinois, Iowa, Indiana, Kansas, Texas and Oklahoma. The western provinces of Canada—especially Saskatchewan, Manitoba and Alberta—are noted wheat-producing areas.

Other countries producing quantities of wheat are Russia, India and Argentina. So great is the wheat production in the Russian Ukraine that the region is called the “bread-basket” of Europe.

Three-fourths of the world’s wheat is planted in the fall, grows through the moist winter, and is harvested in the spring. This is called “winter wheat.” Wheat which is harvested in the fall or early winter is called “spring wheat.”

Canada is the world’s greatest wheat-exporting country, while Great Britain imports the most. Other countries which import wheat are Italy, Germany, France, Belgium, Holland, Czechoslovakia, the Scandinavian countries, Austria, Poland and Egypt. All of them grow some wheat, but home production is not enough to meet their needs.

So large is the wheat industry today that it has become a major business of the world. Immense tracts of land are planted and harvested by powerful machines which cultivate thousands of acres each day. Combines reap and bind the wheat in one process, and huge threshers separate the wheat from the stalk and prepare it for storage and shipment. Millions of people make their living wholly from raising or handling wheat.

Corn is another very old crop. It was the first successful one grown by the colonists in the United States. The Indians, before the colonists arrived, grew a variety of corn called millet, a grain which is used today, particularly in Asia, for food. At present, the corn crop takes up more of the farm land in the United States than any other food. The “Corn

Belt" extends from central Ohio to the Rocky Mountains, and from Canada to the south-central states.

Brooms and brushes are made from broom corn, or Indian millet, grown extensively in the United States. The stems provide the material for the finished articles.

Rye is grown in many sections of the world, but Europe is the largest rye-producing area. The grain is grown in Russia, Poland, Germany and across northern Europe. Only one-tenth of the world's rye is grown elsewhere.

What wheat is to western man, rice is to the millions of Asia. Indeed, in great parts of southern and eastern Asia rice is the chief food of the people. It is eaten by people of the west, but as a supplement to other foods. Rice is also used in making starch and distilled products.

Rice requires a warm, moist climate. In many regions extensive irrigation is necessary for its growth. Fields, called "paddy fields," are prepared by flooding terraced parcels of land and holding water on them to keep the ground soggy. In mountainous or hilly country, ingenuity is necessary in the construction of levels or steps, so arranged that the water is prevented from draining off. Many hills in Japan resemble immense flights of broad steps on which rice is grown.

Most of the world's rice is grown in Asia, China and India being the chief rice-producing countries. Though China grows more rice than any other country, so great is the amount consumed that supplies must be shipped in each year to meet the demand. A rice famine, which may occur because of floods, results in millions of Chinese starving to death. Burma is the leading exporter of rice in Asia. Thailand (Siam) and French Indo-China are also heavy exporters. Japan grows rice extensively.

Rice in the United States is grown in the bottomlands of the Mississippi River valley, on the Louisiana and Texas

Gulf coasts, and in California. Some rice is grown in the region around the mouth of the Nile in Egypt.

Rice is mainly a food crop, but other uses have been developed. The national drink of Japan is sake, distilled from rice. The Indian drink, arrack, is also made from rice. In some areas the rice straw is used for hats and sandals, and a little of it is used for making paper.

The potato is an important food crop in many countries. Germany has generally been at the head of the list for potato production, with Poland second, France third and the United States fourth. Ireland has the most intensive cultivation of potatoes of any country in the world. Many of its people subsist largely on the crop, and a potato famine is a major catastrophe. So important is the potato in Ireland that the name "Irish potato" has become universal for the white potato. In the United States, Idaho and Maine are famous for their potatoes. Both have uniquely suitable soil, and vie for the honor of producing the largest and finest potatoes.

SUGAR AND FRUITS

Sugar cane and sugar beets are the two crops that supply the world's sugar. Cane is grown in tropical and sub-tropical zones and beets in the temperate northern climates. There has been a long battle between producers of each crop for control of the sugar markets. Napoleon was chiefly responsible for starting the sugar beet industry. In 1806 he ordered the plant developed to fill his army needs. As a result, many places in Europe began to cultivate the beet and Europe became the leading producer of the crop.

Cuba is the world's greatest producer of cane sugar, and leads in exports of this product. Although India produces a large amount, the quality is poorer than Cuba's. Further, the southern United States have extensive sugar-cane fields, due

to the warm climate. Sugar beets are grown in the northern and western states.

Among the by-products of sugar cane are molasses, rum, and fiber products such as "Celotex" board.

Georgia is the "Peach State" of the United States. Here are produced some of the finest peaches in the world, although the crop is not confined to this state alone. Peaches are grown generally in the warmer zones of America.

Citrus fruits are raised in fairly warm, frost-free climates. The Mediterranean areas, Florida and California abound in the growth of oranges, lemons and other citrus products.

Grapes are grown under ideal conditions in southern Europe, making this area a fruitful source of wine. In the south of France and northward to the Rhine Valley of Germany are thousands of vineyards, and fine wines such as Moselle, Rhine-wines, Champagne and Burgundy are produced.

Bananas are obtained in large quantities from Central America, especially from Guatemala, Honduras and Costa Rica. They are also grown successfully in the West Indies and Hawaii. Hawaii is also a principal source of pineapples. Immense plantations supply the fruit to all sections of the world. Puerto Rico, Florida and Jamaica also raise pineapples, but not in such quantities as Hawaii.

Peanuts, the source of the now-important peanut oil, are grown in tropical and semi-tropical regions. Poor soil is no hindrance to a good peanut crop. The chief sources of this product are the southern United States, India, South America and Africa.

The breadfruit, from a Polynesian tree, is similar to the potato and is frequently baked as a substitute. In the areas where it is grown it becomes one of the chief foods, but is not shipped far from its source.

Copra, the dried meat of the coconut, is produced in the

South Sea Islands. The natives harvest the nuts and ship the copra to industrial countries for conversion to oil.

Most of the world's olive oil, used for cooking and other purposes, comes from Mediterranean countries. Olive trees cover the hillsides of Spain, Italy and south France, and are grown throughout the Mediterranean basin. The olives and oil are shipped to all parts of the world.

Vanilla comes from an orchid whose seeds yield the sweet flavoring. The plant is grown in Mexico, principally, and also in Japan and Madagascar.

BEVERAGES, SPICES, UNUSUAL FOODS

Coffee has become an almost universal beverage. Originally the coffee tree grew only in Ethiopia and Arabia, but was gradually transported to many tropical countries. Portuguese traders took it to India and Ceylon, while the Dutch carried it to the East Indies, and the Arabs scattered it throughout Africa.

The natural coffee tree is a large evergreen plant with only a few branches. In cultivation it becomes a small, thick shrub. It has a small, white, sweet-smelling flower and produces a dark red fruit, about the size of a cherry. Two coffee beans come from each fruit. These are dried and roasted for use in the beverage.

The largest part of the world's coffee supply comes from Brazil, where about three-fourths of all the coffee consumed is produced. The "coffee plateau" west of Rio de Janeiro is the richest in the world. Santos, Brazil, is one of the greatest coffee shipping ports. Coffee is produced also in Kenya Colony, India, Java and Colombia. Oriental coffee is noted for its flavor and varied blends. Mocha is a variety of coffee with a strong flavor. It comes from Arabia.

The world's largest importer of coffee is the United States,

which grows virtually none. France, the Scandinavian countries and other European nations consume a great deal. Methods of preparing the drink vary according to the tastes of the peoples.

Tea is another beverage consumed in many parts of the world. It is said that tea was known in China as early as 2737 B.C. It was in common use there in the 8th century B.C., when a tax was put on it. Today China is the largest producer of tea, and the greatest consumer. We know that tea was first drunk in England in the 17th century, when it sold at from \$30 to \$50 a pound. Gradually it became the national drink of England. For many centuries the British government has received considerable revenue from its tax on tea.

Other tea-consuming countries are the United States, Russia and Japan. In other areas tea is drunk sparingly if at all.

Tea was first grown in China and believed to be native only to that region. However, in 1834 a native tea shrub was found in Assam, India, and the growing of tea spread through India. The Dutch introduced tea plants into the East Indies and other peoples carried them to Ceylon. All these areas have developed the industry and export a large quantity.

Varieties of tea are accounted for by varying kinds of plants and different treatments of the leaves. Fermentation, rolling, roasting and drying are used in special ways to make different tastes. Four varieties, for instance, are green tea, pekoe, oolong and orange pekoe, each produced by a variation in the treatment of the tea leaves. Many people believe the method of transportation affects the flavor, and will drink only tea carried overland, holding that sea air spoils the flavor.

Yerba maté is a favorite beverage in South America, used in place of tea. The plant producing it is grown chiefly in

Paraguay. The leaves are first smoked and then reduced to a powder from which the drink is brewed.

Cocoa and chocolate are enjoyed by many people, especially those living in the United States and Great Britain. In fact, the United States consumes about one-third of all the cocoa produced in the world, and Great Britain consumes only a bit less.

The large cocoa tree grows primarily in tropical countries where it can have intense heat and moisture. The beans, brown in color and shaped like almonds, are gathered and dried carefully in the sun before shipping. The leaf has medicinal properties.

Chief sources of cocoa (which is prepared from the cacao plant) are Venezuela, Ceylon, Java, Samoa, Madagascar, Nicaragua and Trinidad. Other large cocoa-producing regions are the Gold Coast of Africa, Nigeria, Brazil, Ecuador and Santo Domingo. The cocoa trade, however, is centered in New York, London and Hamburg, Germany.

Jamaica has given its name to a variety of rum, considered the finest produced. Rum is also produced on other islands in the Jamaica region. It is made by the distillation of molasses or other by-products of sugar cane. It is colorless when distilled, the color being added by flavoring.

California and New York are the leaders of the American grape and wine industry. California produces many varieties and ranks first in domestic wine output, with New York a close second.

Tequila, a strong native liquor, is popular among Mexicans. Other national beverages include Tokay wine, associated with Hungary's Tokay vineyards; ale, a malt liquor, became popular in England after hops were introduced into that country from Holland in the 16th century; sake, the rice wine of Japan with a flavor similar to Madeira or Sherry wine; schnapps (Holland gin), popular in Holland and Ger-

many; and vodka, distilled from rye or potatoes and highly popular among Russian peasants.

Oporto in Portugal is the source of Port wine, developed as a special product of that particular area.

Spices have been the prize of traders for centuries. Many explorations of the 15th and 16th centuries were undertaken to open up water routes to the lands of spices.

India has contributed curry to the world's epicures. It is an exceedingly spicy seasoning used in the preparation of various dishes, usually with rice as a base.

Cayenne pepper comes from the West Indies. It is made from the fruit of a plant, dried and ground to a fine powder. Ginger is produced from a plant whose roots supply the substance for cooking, beverages, and medicinal purposes. China, India and Jamaica are the chief sources of ginger.

Soybeans are grown very extensively in China and Japan, where they provide a flour and are used in many ways as food. The beans are now produced to a considerable extent in the United States, mostly as a forage crop and for oil.

Cinnamon, originally found chiefly in Ceylon, is now also grown in Brazil, the West Indies, Egypt, and Java.

Cloves come particularly from Zanzibar, off the east coast of Africa, and also from parts of the West Indies.

Mint leaves, grown throughout the United States, are used in flavoring the julep, a popular southern drink, and foods.

The source of licorice is the root of an herb native to southern Europe and Asia. Some varieties of licorice are grown in the United States.

Some foods eaten by people in far-away places are strange to us. For example, Eskimos eat blubber from whales and other sea animals. This is the fat between the animal's skin and flesh. It is also used as a source of oil. Snails are eaten as a delicacy in France, where the preparation of *escargot* is

one of the culinary arts. Raw fish is considered appetizing in Japan.

TEXTILES

Textiles must be manufactured in damp regions so that the fibers can be kept moist to avoid breaking. The great textile manufacturing regions of the United States are in New England. The first mill was established in Rhode Island in 1790 by Samuel Slater. Water power and the development of machinery helped establish the industry throughout Massachusetts, Rhode Island, New Hampshire and other northeastern areas.

Cotton is "king" in the United States. The American crop is the largest in the world, extending over the entire southern part of the country. Sea Island cotton, grown first on the islands off the Atlantic coast from South Carolina down, is the highest grade of the plant known. Upland is the name given to another type of cotton, grown in the interior of the South.

Although more than half the world's cotton is produced in the southern United States, good cotton is produced elsewhere. Regions of Asia and Africa produce it in abundance. India, China and Egypt are lands which grow large amounts. Other producing areas are Russia and South America, particularly Brazil. Cotton can best be grown in a moist, temperate climate with freedom from frost for at least six months of the year.

The spinning of cotton and weaving of cotton goods are ancient arts. It is known that woven garments were made by the Egyptians more than 6,000 years ago. Columbus found the Indians of America weaving cotton into cloth. However, the invention of the gin to separate the cotton from the plant helped make the United States the cotton center of the world. Eli Whitney was the inventor, in 1794.

In the middle of the 18th century, Hargreaves invented the "Spinning Jenny," a machine capable of spinning several threads of yarn at once. This was the forerunner of the modern cotton spinning factory. With these two inventions the industry grew rapidly, and became virtually the "heart and soul" of the South.

In Europe the textile industry plays an important role. Cotton is imported to the British Isles and is manufactured into many kinds of cloth. Manchester is the largest center of the yarn trade. The county of Lancashire has the greatest number of cotton mills of any place in the world.

Cotton spinning has been growing in importance in India, Japan and China.

The cotton seeds, previously cast aside as waste, are now crushed and the oil used for cooking, making candles and in many other products. The fuzz from the seeds is used for the manufacture of paper and guncotton. All the by-products of cotton are assuming greater and greater importance.

Canvas, calico, cretonne and muslin are some of the types of cotton fabric produced today.

Wool is an important material for the manufacture of clothing. It comes largely from the western and central United States, Australia, New Zealand, Europe and South America, where sheep-raising is a major industry. Australia provides the world's foremost supply of raw wool. The open, sparsely settled continent is ideal for sheep grazing. Like Australia, Canada has vast open spaces suitable for sheep and supplies a large quantity of wool as its role in the textile world.

The pampas are extensive plains in Argentina, excellent as grazing lands.

For generations, before machinery was in general use, the home spinning of wool was widely practiced. This industry in the New England colonies brought the word "spinster" into

the language. Under an old law each household was required to turn out a certain amount of wool each day. Women, particularly the unmarried, sat at home doing this work, and were referred to as spinsters.

With the invention of machinery for the purpose, the wool industry became centered in cities. Yorkshire and Lancashire in England are famous both as woolen and cotton manufacturing cities. Manchester is one of the world's greatest textile markets. Tweed is named for a river in Scotland, on which are textile mills, and is an exceptionally soft material, made with wool. In the United States, woolen manufacturing is centered in New England. Shoddy is a woolen material made of reclaimed cloth.

The names Cheviot, Cotswold, and Leicester are applied to types of English sheep from which exceptionally high quality wool is obtained. The Merino sheep, a specialty of Spain, produce one of the finest qualities of wool in the world. Other animals besides sheep which provide wool are goats, particularly Angoras and Cashmeres, the alpaca and llama of South America, and, to some extent, camels.

Silk, one of the finest of cloths, is produced originally by the silkworm, which eats the leaves of the mulberry tree and then spins a cocoon from which the silk threads are taken. Sericulture is the name applied to the development and care of the silkworm, and has been made an art in the Far East, with schools established to teach it, particularly in Japan.

Japan, India and China produce most of the world's raw silk. The chief reason for the concentration of production in the Asiatic countries is that the industry requires painstaking care with much hand labor. This is available in quantities, and has been cheap in Asia.

The United States is the largest manufacturer of silk products in the world. Because of the use of machines and the availability of power, much of the world's textile manu-

facturing has developed in America. Paterson, New Jersey, is a great silk-products manufacturing center, producing about 10% of the total output of the United States. The city is often compared to Lyons, France, because of the concentration of silk manufacturing. Lyons is situated near a raw-silk center and is also a machine-manufacturing district.

Shantung is a cloth made originally in Shantung Province, China, from the silk of wild silkworms. It is like pongee, a silken fabric. Rayon, a textile made chemically from a wood base, is similar to silk in texture. The wood pulp is treated with chemicals and then turned out as fiber threads.

Linen is produced from the vegetable plant called flax. The plant is grown widely throughout the world. However, Ireland is the heart of the linen industry. Irish linens have become famous because of the intensive cultivation of flax and the artistry of the weavers. Belfast is one of the great linen centers.

In the United States linen manufacture has lagged because a higher standard of living created more of a demand for silk, and because of the wealth of cotton. "Style" in clothing has caused an increase in silk making. Linen also requires more labor in the gathering of the flax—labor which is not so easily available in the United States.

Persia, India and Turkey have won renown for carpet-weaving. Oriental rugs are noted for their fine hand workmanship; America has an extensive machine industry for making carpets.

Jute, hemp and sisal are fiber plants from which rope, cordage and twine are made. They are grown chiefly in Asia and in the tropics, but most countries have various types of the plants. Manila hemp, used for rope, is the best known, and is a chief product of the Philippine Islands.

DOMESTICATED ANIMALS

Animals have served man since the earliest days both for work and as sources of food. The ox, for example, was an ancient beast of burden. Cattle of various kinds have been man's chief sources of meat. Shorthorn, Hereford, Aberdeen Angus and Galloway are some of the names of breeds of modern beef cattle, particularly prized for fine cuts. These animals are raised in the western United States, in Argentina, in Australia and other parts of the world. Argentina has become famous for its fine beef cattle. Its extensive grazing lands provide the means for large beef exports.

In the United States, the Union Stockyards in Chicago are the largest in the world. To these yards come cattle from all sections of the American Mid-West. Most of the country's packing industry is centered there.

A number of breeds of cattle are used primarily for dairy products. Among these are the Jersey, Guernsey and Holstein cows. The first two were bred originally on the islands of Jersey and Guernsey in the English Channel, while the last was bred in Holstein, a part of Germany near Denmark. Among the great dairy areas of the world are Denmark, Switzerland, and Wisconsin. In all these areas cheeses, milk, butter and cream are produced in abundance.

Among the products, other than meat and milk, obtained from cattle are: buttons and ornaments from the horns; glue from the hoofs; leather from the hides; oils, soaps and candles from the fats; matting and furniture padding from the hair.

Certain types of cattle are regarded as religious symbols in India. A large number of Hindus eat no meat and use cattle only for draft purposes.

Veal comes from the calf, slaughtered for its meat before attaining a certain regulation weight.

A source of meat for the American Indians and early settlers in America was the bison, or buffalo. Great herds roamed the western United States for many years. Today only a few are left, protected on government reservations or in privately owned herds. The water buffalo of southern Asia is used to work the fields. It is particularly valuable in the watered rice paddies.

Hogs are another source of meat. Bacon, pork, ham and lard are the chief products obtained from them. In the southern United States are wild or semi-domesticated hogs known as "razor-backs." They are thin, hairy animals from which an inferior grade of pork is obtained.

Sheep have been important to man for thousands of years. The largest part of the world's modern sheep farming is carried on south of the equator. Australia, New Zealand and South America have extensive grazing areas. Canada, sections of the United States, England and Scotland are also important sheep countries. England, a great mutton-eating country, consumes a large number of the sheep raised there.

Goats are valuable in place of cattle because they produce an exceedingly rich milk and are able to live on rather poor lands. The skins are used to make kid gloves.

The horse, one of the earliest beasts of burden, has been bred for centuries for particular purposes. Kentucky is noted for its race horses; the "blue grass" country provides excellent pasture and breeding land. France has produced the Percheron, an exceptionally fine draft horse. The center of the industry is the district of Perche. The Shetland Islands, off the coast of northern Scotland, have bred the Shetland pony, a shaggy, sturdy little animal.

One of the important industries of the United States and many other parts of the world is chicken raising. These fowl are valuable both for their flesh and for eggs. Plymouth Rock, Rhode Island Red and Cochín are some of the numer-

ous types of chickens bred in America for poultry purposes.

The dog ranks high in some countries as a beast of burden, while in others it is valuable as a guard or hunter or pet. Newfoundland has contributed the Newfoundland dog, large, with thick, black hair, and an excellent retriever. The St. Bernard is a rescue animal in the Alps. Eskimo dogs pull sleds through the Arctic ice. English Setter, Irish Setter and Scottie are bred in the British Isles and elsewhere primarily as hunters. Numbers of other breeds have been brought into the United States and raised exclusively as pets.

The caribou is found mostly in northern Canada. It is an antlered animal, similar to the moose, and provides food and clothing for the Eskimos and Indians who hunt it. The reindeer is another northern animal, imported originally into Alaska to supply the Eskimos with food and clothing. There are now many thousands of reindeer in the Alaskan herds, and some of the meat is shipped to the United States. Lapland, in northern Scandinavia, domesticates the reindeer.

The yak is the beast of burden in Tibet, a lofty Asiatic plateau where only animals with warm coats can live.

The camel is the "ship of the desert," able to go long distances with little food or water, and is used for caravan travel in the arid regions of Asia and Africa.

The llama is peculiar to the Andes regions of South America and is used as a draft animal. It stands about five feet high and can carry a load of 120 pounds with ease. Its wool furnishes textiles. The vicuña, a type of wild llama, is valued for its wool. It is hunted in the highlands of Peru, Bolivia and other South American mountain regions. The alpaca is another member of the same family, also prized for its wool.

Use of elephants for heavy labor makes them important to southern Asia and Africa. India also works them as draft animals, Burma and some other Asiatic countries for hauling

logs, and recently they have been employed in carrying war supplies over difficult routes from India to China.

The ibex, a species of wild goat with long, curved horns, lives in the high mountain regions of Europe, Asia and Africa.

FISH, GAME, AND WILD ANIMALS

Fish is a leading food around the earth. Fulton and Billingsgate designate two of the largest fish markets in the world, where great quantities of fish are brought daily to be distributed to merchants. The Fulton Market is in New York City, Billingsgate in London. Aberdeen, Hull and Yarmouth are among the principal English fishing ports. Fish is the only food product of which Great Britain has more than enough for her own needs.

Fish is the principal food of Japan, a nation of fishermen. The island waters swarm with fishing boats, which sometimes sail thousands of miles from home. Many vanish during the typhoon season each year. The Japanese and other Orientals use cormorants in fishing—large birds whose throats are tied so that they can scoop up the fish in their mouths but cannot swallow them.

Sardinia, a Mediterranean island south of France, has given its name to the sardine. French fishermen gather huge quantities of the fish for export to all parts of the world. The Grand Banks, south of Newfoundland, are a famous cod fishing ground. Hundreds of boats from New England, Canada and even Europe sail there every year. Oil of nutritive value to children is extracted from cod, while the liver has provided the vitamin-rich cod-liver oil. The cod is also an excellent fish to eat.

Chesapeake Bay, on the American east coast, is a center for oysters, clams and other shellfish. The waters off Mary-

land and Virginia provide an abundant and popular variety of oysters.

The Pacific Northwest area of the United States is rich in salmon, which flourish in the waters from California to Canada and around the islands of the Columbia and other rivers. Salmon give this region one of its major industries. Salmon canning is a major occupation in Alaska. Other fish, including halibut, herring and cod, are shipped out in great quantities. More salmon is canned in Ketchikan, Alaska, than in any other city in the world.

Tuna comes largely from the waters off the southern United States or California. The fish is large, weighing sometimes up to 1,500 pounds. There are smaller varieties.

The trout, a game fish, is a favorite food. It is caught in streams and lakes throughout the United States. Best known, perhaps, is the rainbow trout.

An anchovy is a small, richly flavored fish of the herring type, caught chiefly off southern Europe. The meat is considered a delicacy.

The largest lake fisheries in the world are on the American Great Lakes. Many varieties of fish are handled, including pike, perch, whitefish, cisco and trout.

Norwegians have specialized in whaling. Their big ships have operated throughout the world, and a large part of the whale-oil industry was in their hands. The vessels, of special type, are called factory-ships, and all the whales' by-products are extracted en route.

Sponges used in cleaning provide a whole fishing industry in themselves. Tarpon Springs, Florida, is one of the main United States sponge centers. Sponges are a form of animal life. They cling to the bottom of the sea and must be torn off with hooks or obtained by divers.

The iguana is a lizard found in the West Indies, Mexico and South America. It is some five feet long, with crested

back and tail. The meat is considered tasty by natives. The armadillo's name suggests its armor coat. This Central and South American animal is about three feet long and is covered from head to tail with a scaly shield. Its meat is frequently eaten.

The kangaroo of Australia and opossum of North America are sometimes considered a food delicacy. Both animals carry their young in a pouch, and are called marsupials.

The panda, a large, playful animal with black and white markings, is a type of bear found in China and Tibet. It is a prized food animal in its native areas. The large brown bear of North America lives in Alaska. Throughout the western United States there are smaller brown bears of different varieties. During winter they remain in tree trunks or other sheltered spots where they hibernate until spring. Southern bears do not hibernate.

Deer still abound in the northeastern United States. Hunted in limited seasons, they provide venison steak and skins.

The moose is native to the Canadian lakes and forests, and is found also in northern Maine. It usually stays close to water.

The coyote, called a prairie wolf, roams the western plains of the United States; its cry is heard for miles across the open country. It hunts small animals in nocturnal forays, and is itself hunted as a farmyard menace.

The gnu, an African animal, is a variety of antelope. It is distinguished by a "beard," short curved horns and a shoulder hump. It is also called the wildebeast.

The glutton is an animal whose name also applies to human greed. It is a small, fur-bearing animal, of the weasel family, native to Europe, Asia and some parts of the United States.

Wolves traveling in packs are still feared in some isolated

regions. Although most of them have vanished from the United States, they are found in large numbers in Siberia and Canada.

FURS, SKINS, AND HIDES

The trapping and preparing of furs has become a great industry. The northern regions of the earth produce the most furs. Their long winters result in heavy coats on fur-bearing animals. Canada, Alaska, Siberia and the Scandinavian countries are the most productive. Russia is particularly suited to fur-bearing animals because of its vast, virtually untouched forest areas, giving animals free run from the Arctic far to the south. Thousands of valuable animals are trapped every year.

The Mid-West region of the United States, where many small animals still roam, is the chief fur area of the country. Such pelts as raccoon, beaver, otter, muskrat and squirrel are sold in St. Louis, Mo., the principal fur market.

The Hudson's Bay Company established the first fur-trading posts in Canada in the heavily forested region along the 50th Parallel. Many posts, still in existence, are far from civilization, in frozen country.

Fur farming is the modern method of obtaining furs for marketing. In Alaska, Canada and the United States farms have been established to breed and raise the fox and other valuable fur animals.

Most of North America's fur seals have come from the Pribilof Islands, southwest of Alaska. A treaty negotiated by the United States, Great Britain, Japan and Russia regulated the killing of the seals which go to the islands to breed.

Fox furs are particularly valuable for fine coats. The four colors most prominent in identifying fox furs are silver, blue, red and black. Various breeds of fox are known by these

colors. The fur for a mink coat would most likely come from Canada or Russia. The mink, a weasel-like animal which lives in burrows near streams, is highly valued for its soft, glossy, brown fur.

Sable, another valuable fur animal, is small and brown. It is close kin to the weasel and marten. The finest sable pelts come from Siberia and Canada.

The opossum, which "plays dead," is a tree-living animal that also provides furs. 'Possum hunting is a popular sport in the southern United States.

The leopard provides a warm and stylish fur used in making coats and jackets. Leopard fur has lustrous black spots. Some varieties come from Asia, others from Africa.

The distinguishing marks of an ocelot are blackish ring-spots. The fur itself is fawn or gray-brown. The ocelot is a tropical American wildcat ranging as far north as Louisiana. The sheep produces a coat often worn by ranchers. Made of hide and wool combination, sheepskins provide excellent protection against biting winds.

The true lynx is found in northern Canada and Alaska. Its highly-prized fur is plain gray. The lynx is a member of the cat family. American bobcat has sometimes been offered as true lynx.

The skunk is unpleasant to meet but pleasant to wear. Its fine, black fur streaked with white comes from the small animal inhabiting bushy, rocky regions, chiefly in the eastern United States. The raccoon, a night-wandering animal with a brown-black fur, is the source of "coon-skin" hats popular in the early days of American exploration. Usually the tail of the animal was appended to the hat as a decoration.

Bearskin is frequently used as an ornamental rug. The brown bear and grizzly still exist in western North America. Polar bear pelts are also used for decorative pieces as well as for clothing.

Not only the furs, but the hides of many animals are valuable. The principal hides used today are those of cattle. Argentina, Canada, Uruguay, Australia, New Zealand and the United States are among the principal sources of cattle hides. These must first be turned into leather by tanning, in which the bark of certain trees is used in chemical treatment to toughen the hides against decay. A modern process, called chrome liquor tanning, uses a mineral solution to speed up the work.

Sources of leather other than cattle are sheep and goats.

The most widespread use of leather is in manufacturing boots and shoes. By far the largest amount of leather is used in footwear. Lynn and Brockton, Massachusetts, are noted shoe centers. Missouri and New York State have also developed large shoe industries, but the Massachusetts district is the most important. Goatskin is frequently used in making "uppers" of shoes, where the requirement is appearance rather than toughness. Most goatskins have been imported into America from India, China, Brazil and Mediterranean countries.

Artificial leather, making no use of hides or skins, is produced from paper or fabrics coated with rubber or other hard, glossy material.

In addition to shoes, leather is used for driving belts in machinery. The toughest kind is required to withstand the wear of high-speed friction.

Pigskin is associated with American football, and horsehide with baseball. Both materials go into the making of tough ball coverings which take a lot of beating.

Alligators, raised on "farms" in the southern United States, provide fancy skins. These are used, among other things, for making women's handbags and fine luggage. The shark, a deadly fish, also contributes to the leather supply.

Its skin is used in coats and other articles of clothing where a particular quality is desired.

The peccary is a pig-like animal, the only swine native to the American continent. It ranges from Paraguay, in South America, to Arkansas, and furnishes a hide useful for limited purposes.

MINEALS

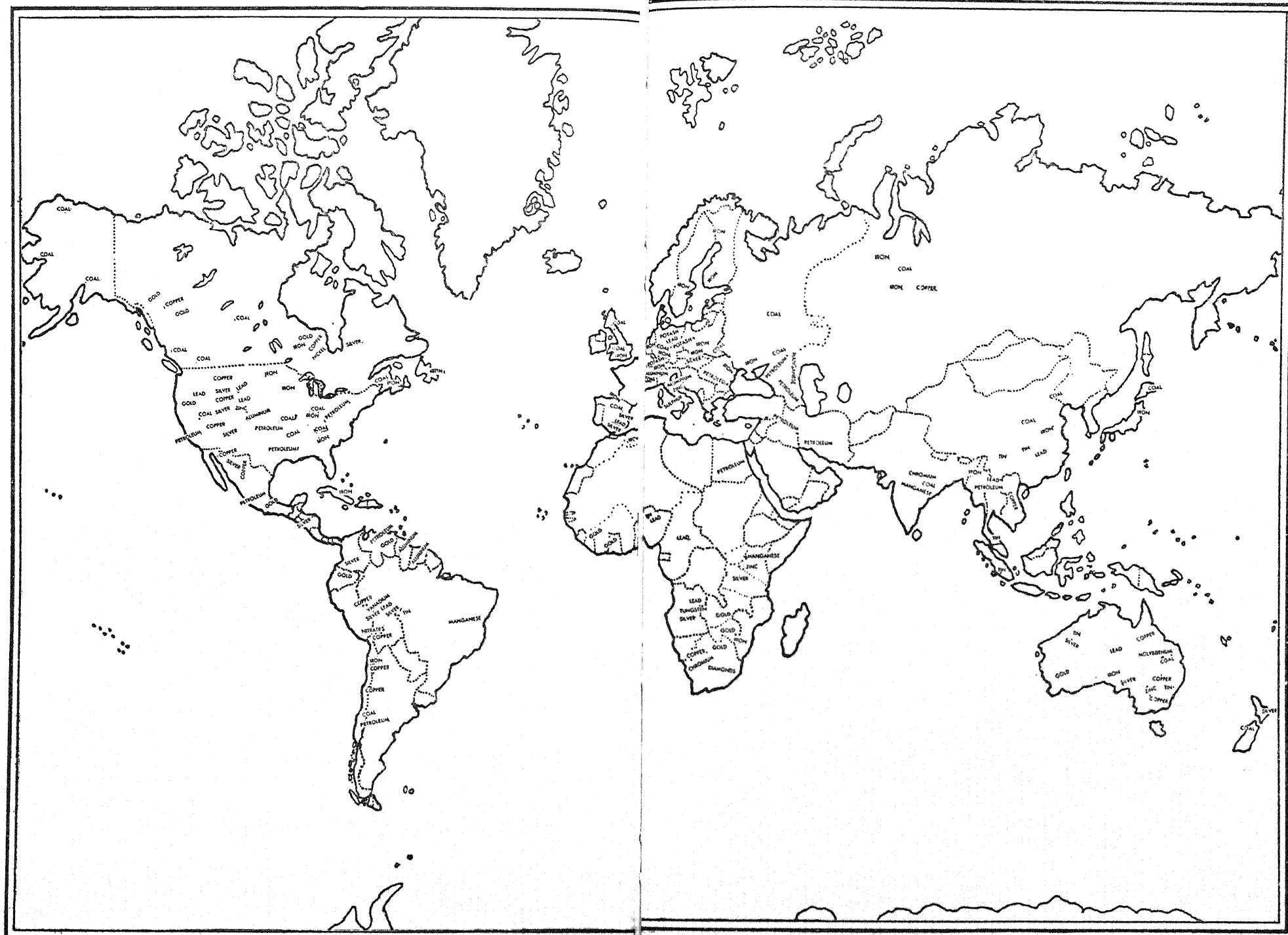
Iron is essential to the modern machine world. The metal is found in the ground, usually from 300 to 800 feet deep, and is extracted from the ore by smelting. When carbon is added to iron in a molten state, steel is produced.

Iron has been in use for thousands of years. Ancient Egypt and Assyria used it extensively. India, at that time, was an important source of iron. The Greeks obtained iron some 3,000 years ago from around the Black Sea, and the Romans obtained the metal from Spain and Elba. Steel was also made during those early days.

Great iron ore deposits are found in the vicinity of Lake Superior, in the great Minnesota field. Nearly 80% of all American iron ore comes from this Michigan-Minnesota-Wisconsin area. Alabama and Arizona contain rich ore deposits—particularly Alabama, which has a great steel center at Birmingham.

Spain and Sweden, essentially non-industrial countries, have led the world in iron-ore exports. They have extensive supplies which are shipped to nations poor in metals. Much of their output has gone to Great Britain. The Lorraine fields of iron ore lie between France and Germany, feeding their products to rich industrial basins. Belgium and Luxembourg also share in the resources of this mining area.

Chromium is a mineral element used in hardening steel. It comes mostly from Rhodesia, in Africa, and from India. There are some chromium deposits in the United States.



15. THE WORLD'S RESOURCES OF

MINERALS, METALS, COAL, AND PETROLEUM

Tungsten, a mineral valuable in making electric light filaments and as an alloy in iron and aluminum, is produced mostly in the Far East, especially China. It comes also from Burma, Japan and Australia. Bolivia and the United States have some. Tungsten is not to be confused with tung, an oil obtained from Chinese trees.

Copper was one of the first metals used by man. Very early he discovered that this metal could be mixed with others to form alloys. With tin the alloy formed is bronze, first used in the "Bronze Age," an early stage in man's development. Another alloy is brass, a mixture of copper and zinc.

Copper is extremely important in the modern world, especially since it is a good conductor of electricity. Millions of miles of copper wire are manufactured each year for use in the numerous electrical devices so vital to our industrial life.

The United States is the largest copper-producing nation in the world. Canada, Russia and Chile also produce large quantities. It is estimated that approximately 1,500,000 tons of copper are taken out of the earth yearly. Arizona is the richest copper region in the United States. Utah has extensive ore deposits, along with the Butte area in Montana, and northern Michigan. Copper is the only industrial mineral found to any extent in Japan. Consequently, the nation uses a large amount of scrap metal to make up the deficiencies.

Aluminum is one of the most valuable metals today because of its lightness combined with extreme toughness. It is also a good conductor of electricity. More and more is being used in the manufacture of airplanes.

Bauxite is the ore from which aluminum is manufactured. Its name comes from Baux, France, where quantities of the ore are found. Arkansas supplies nearly 75% of the bauxite mined in the United States. Other deposits exist in Georgia, Alabama and Tennessee. Despite these deposits, a great deal

of the ore used in the United States is imported from British and Dutch Guiana, on the north coast of South America. The ore there is mined on the surface. American interests have developed this bauxite source.

Tin is scarce in the United States. The world's largest tin fields are in southeastern Asia, particularly the Malay Peninsula. China, Burma and the Dutch East Indies also contain sizeable deposits of tin ore.

The metal is useful mostly as an alloy or plate. Tin cans, used for so much of our food, are made from thin plates of steel which have been passed through molten tin and palm oil so that only a slight covering of tin sticks to the steel. Less than 50% of the tin can is actually tin. The remainder is steel.

Some of the richest tin ores in the world are obtained from Billiton and Banka islands, in the Dutch East Indies. Tin mining has greatly increased the importance of Bolivia, in South America. Large deposits are contained in this mountainous country, and much of the supply is shipped to North American factories.

Lead is another metal of great modern importance. But it is not a modern metal. In ancient times men knew how to mine lead and use it. The Old Testament mentions the metal several times. The Romans worked lead mines extensively and knew how to use lead to solder the joints of water pipes, much as we do today. Lead, alloyed with tin, goes into the making of pewter tableware.

The metal is found generally throughout the world. Until recently Great Britain and Spain held a monopoly of the lead market. However, development of lead deposits in the United States, South America, Australia and elsewhere began, with the result that the North American continent today provides about half of the total world supply. The United States contains about 40% of the known supply. Most of it is

mined in the western states, with some in southeastern Missouri. Leadville, Colorado, is one of the mining centers.

Australia ranks second to the United States in its supply of lead. Big deposits exist in Germany, Spain and Burma. Canada shares the rich North American fields.

Spain has famous mercury mines. They are centered in the Almaden region. The product is used in thermometers and as an agent in the production of gold and silver.

Zinc is metallic ore usually found with lead. One section of the United States—parts of Oklahoma, Kansas, and Missouri—is called the Tri-State Lead and Zinc District.

Manganese is used chiefly in alloy with other minerals to give qualities of toughness and elasticity to steel. Great deposits of the metal occur in the Caucasus region of south Russia, in India, and Brazil. There are small deposits in the United States and West Africa.

Almost 90% of the world's nickel is produced in Canada. The Sudbury District of Ontario contains great nickel fields. Spain is also an important nickel-mining area. The metal is used to provide protection against rust; it polishes easily, and is used in coins.

The clay used in making chinaware is a non-metallic mineral substance. The cities of Delft (Holland), Dresden (Germany), and Limoges (France) are famous continental European china-manufacturing centers. Much of the fine china of today is manufactured in England and the United States.

Asbestos, used extensively as fire-proofing material, is a crystallized rock easily separated into fibrous pieces. It has a high melting point and is a poor heat conductor. Large asbestos deposits occur in Quebec Province, Canada, and in South Africa, the United States and Russia.

Lime and gypsum, two other non-metallic minerals, are used together in plaster. Both are abundantly provided in

the earth. Gypsum deposits, extensive in New York State, go into making Plaster-of-Paris.

Common sand is used in manufacturing glass. Silica, one of the essentials in glass-making, is extracted from sand.

Vanadium is a rare metallic element used in steel. It is found in Peru, the western United States and in Africa, usually with deposits of copper, lead and iron.

Graphite, sometimes called Black Lead, is the mineral used in pencils. Large sources are found in Madagascar, Mexico, Canada and the United States, principally in Michigan, Rhode Island, Alabama, Texas and Montana. Graphite is also used in paints and lubricants.

PRECIOUS STONES AND METALS

The diamond is one of the most prized of precious stones because of its ability to take a high polish and reflect light brilliantly. It also has industrial use in cutting instruments. Diamonds were discovered in South Africa when a native boy was found playing with a stone of brilliant luster. This particular gem was later marketed for \$2,500, and the diamond industry had begun. Today the most productive diamond mines are located in South Africa. Kimberley is the leading diamond source of the world. The South African field accounts for most of the stones on the markets today.

Amsterdam, Holland, has been noted as the world's foremost center for diamond-cutting. The art was developed there about the middle of the 15th century. One of the world's largest diamond markets is located in New York City, along Maiden Lane.

Precious stones, including the diamond, are measured in terms of the carat. The weight of one carat is three and one-sixth troy grains. This same weight is used for measuring the

fineness of gold, with pure gold given the weight of 24 carats.

Kohinoor, Great Mogul, Hope and Cullinan are names of famous diamonds. The Kohinoor, perhaps the most noted, weighs $106\frac{1}{2}$ carats as cut. Its name in Persian means "mountain of light."

The work of cutting hard metals is assigned to the diamond, itself one of the hardest known substances. Diamonds are used in drills and for boring. Thus they are most important in modern industry.

Corundum is the name given to some hard mineral substances which produce several valuable stones, among them rubies and sapphires. Corundum deposits in Canada are the largest in the world. There are other deposits in Georgia, North Carolina and Montana.

The Ural Mountain region is the chief Russian source of valuable stones. Emeralds, amethysts and others are found there, as well as platinum.

Rubies have been found in the North Carolina region of the United States, with many excellent specimens uncovered. Rubies are second only to diamonds in hardness, and perfect ones are more valuable than diamonds. The world's richest source of these stones is Burma.

Most sapphires come from Burma, Ceylon, India, Australia and Thailand (Siam). Some are found in Montana. Sapphires are of many colors, blue being the most familiar.

Colombia, South America, supplies most of the world's emeralds. The valuable green gems were discovered there in 1555. Hungary and Australia yield valuable opals. The American variety is fairly common, but does not offer the play of light found in others.

Amethyst is a violet color. It is a variety of crystallized quartz, with its coloring due to manganese or iron deposits. It is found in Brazil, India, Siberia and North Carolina.

Lapis lazuli is a gem of rich blue, made up of many miner-

als and valued since ancient times in the Near East and Asia. Its chief sources are old Afghanistan mines and Siberia.

Porphyry is a brilliant stone with stripes of green, purple and red. It can take a very high polish. Consequently it has been used for hundreds of years to decorate buildings. It is also valued as jewelry.

Iridium goes chiefly into making of fountain pens. It is usually found in alloy with platinum and can be fused into a hard metal like steel.

Pearls, valued as jewelry, are formed from the secretion of oysters or mussels around foreign substances in their shells. Japan once caused a furore in the pearl market by creating artificial pearls made by injecting foreign matter into oysters and planting the oysters to develop the gems. Mikimoto pearls thus made were put on the market, but their value has never been as great as the "real" article.

Pearl fishing is carried on most extensively in the South Pacific and Indian oceans. Some pearls are found off Lower California, and there is a rich harvest off the coast of Australia.

China is usually associated with jade, a green stone used in carvings, decorations for temples, and jewelry.

Gold and silver are precious metals used as mediums of exchange, as jewelry, and in commercial projects. Two processes of mining are used. One is a complicated one of crushing the ore and removing the metal by forms of washing. The other, "placer mining," is the process of washing ore in river beds to separate the dirt from the valuable minerals. Early "placer" miners used ordinary pans. High-pressure hoses were substituted later. This latter method was used almost exclusively by the famous '49ers in California and by the miners who worked the Yukon in '98.

The leading gold-producing area of the world is the Cape Colony and Natal regions of South Africa. Canada and the

United States rank next. "Rand" refers to the rich South African gold field. The name is an abbreviation of the Witwatersrand, a low range of hills on either side of Johannesburg, Transvaal, South Africa.

The California gold rush occurred in 1849, with the discovery of gold at Sutter's Creek. The Klondike rush to the gold of the Yukon territory of Canada occurred in 1898.

North America produces most of the world's silver. Mexico and the United States lead in production. However, Canada and South America rank high.

Silver was a major issue in the Presidential campaign of 1896. Its use in free and unlimited coinage was advocated by William Jennings Bryan. This was a result of pressure from the silver-producing areas of the United States. Today a visitor to the western United States still frequently finds silver dollars in use as a sign of a rich silver-mining region. Many nations have voluntarily restricted silver production since its heyday in the last century.

Platinum is called "little silver." Discovered in Colombia, South America, on the Pinto River, it was called *Platina del Pinto* by the Spaniards ("little silver of the Pinto River"). Before its high value was realized, platinum was used in attempts to counterfeit silver coins. Today, the two chief sources of platinum are in South America and Russia. They account for virtually the entire world supply.

PETROLEUM AND COAL

Petroleum is becoming the major source of energy to operate the machine civilization of our day. More and more uses are being found for this natural product, and man depends to a great extent on the instruments and machines using oil as fuel.

The word "petroleum" is derived from two Latin words—

“petra” meaning rock, and “oleum” meaning oil. It is obtained from wells bored deep into the ground to lakes of oil. From some wells the oil gushes out in great streams, due to the fact that underground pressure is exerted by gas (a by-product of oil fields often obtained along with the oil and used for illumination and heating) or because the lake of oil slopes up from the hole. At other wells the oil must be pumped out.

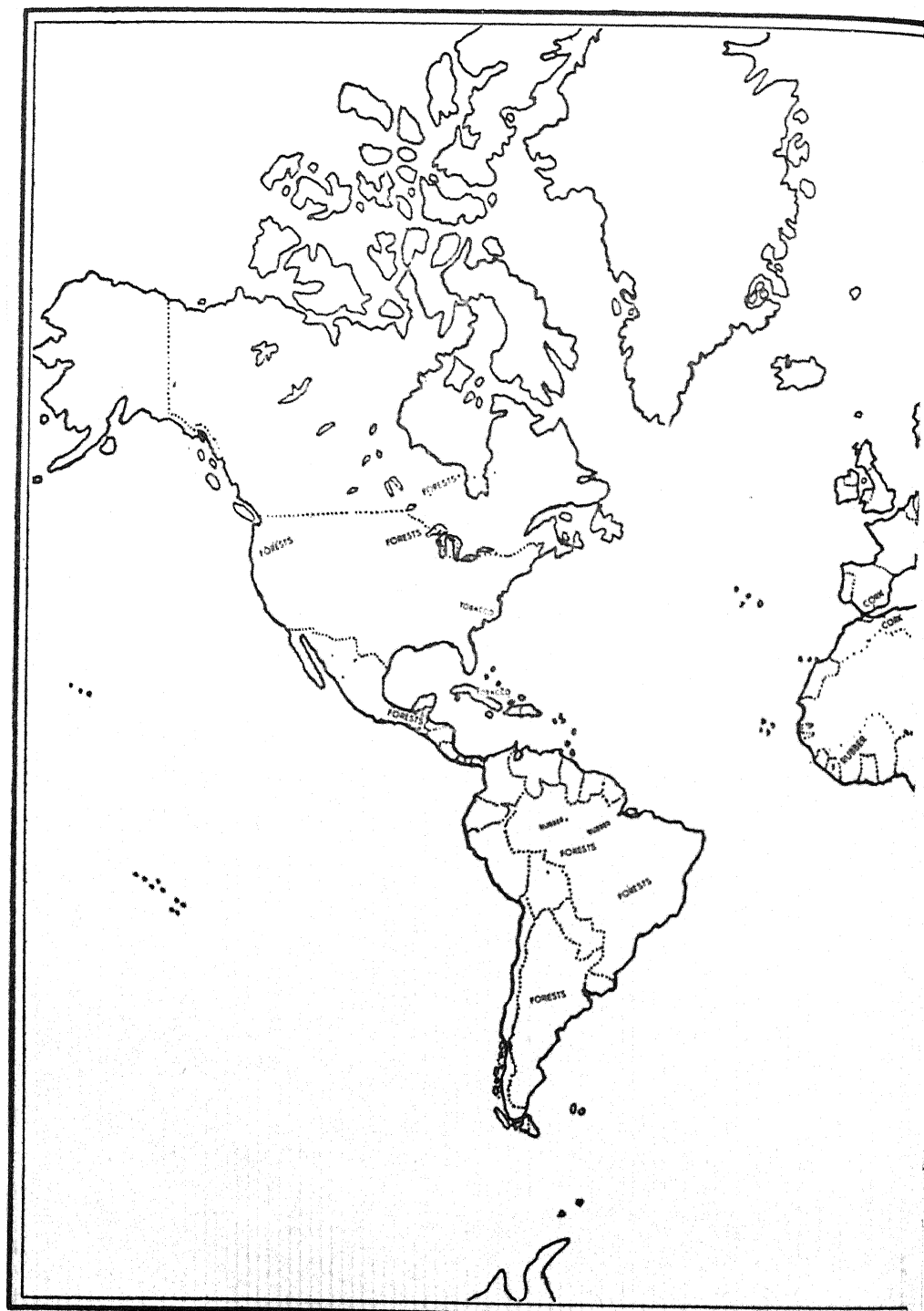
The world's leading oil resources are to be found in the western and southern United States, southeastern Europe, the Near East, the East Indies and along the northern coast of South America.

Chief oil regions of the United States are: the Mid-Continent field, including Texas, Oklahoma, Kansas and Arkansas; the Pacific Coast field, chiefly in California; and the Gulf Coast area of the southern states. Considerable oil is produced in Pennsylvania, and some comes from Montana, Wyoming, Colorado and New Mexico. Oil wells are located in the water along the Gulf of Mexico and the California coast. These are called tidewater fields.

The United States is the largest producer and consumer of petroleum products. It is able to supply its own huge needs for industry, transportation, fuel, lubrication, gasoline and other uses.

The first flowing oil well was drilled at Titusville, Pennsylvania, in 1859. Previously there had been no scientific way of obtaining oil from the earth.

After the oil has been taken from the well, it must be refined and prepared for use. Crude oil is limited in its uses. In the refining process various types of oil, gasoline and lubricants are produced. “Cracking” is the process used in the production of gasoline from crude oil. In it, application of great heat separates the various elements. This process is carried on in refineries.



Crude oil for the refineries of Aruba and Curaçao, islands along the northern coast of South America, comes from the extensive wells around Lake Maracaibo, Venezuela. This district has supplied up to one-tenth of the world's oil.

Rumania, in southeastern Europe, is rich in oil. Its wells, mostly located north of Bucharest, have supplied much of Europe's requirements. Russia's richest oil fields are in the Caucasus region between the Black Sea and the Caspian Sea, and on Sakhalin Island, north of Japan. Baku, a Russian port on the Caspian, is important as the center of one of the richest oil-producing areas in the world. From there oil is shipped to other parts of Russia and to the outside world.

Often giant pipelines carry oil from the wells to refineries many hundreds of miles away. The pipeline ending at Haifa, Palestine, transports oil from the British fields in Iraq (formerly Mesopotamia) 1,100 miles to the Mediterranean Sea for storage or shipment to the west.

Helium, a gas found in oil districts, is a light, noninflammable gas used in dirigibles. It makes them safer, since the gas will not explode as will other gases when exposed to heat. The United States has a virtual monopoly of the world's helium supply, plants in Texas producing most of the gas.

Coal is one of the chief sources of power. It is a kind of stratified rock, a mineralized carbon product formed by the decay of vegetable matter in the earth. Under great pressure the decomposing matter hardens and forms into seams or veins. This must be mined and prepared for use.

Although there is coal in many parts of the world, a great percentage of that now being mined is in the United States, Great Britain, Germany, France, Russia and Poland. Pennsylvania produces most of America's anthracite coal. West Virginia ranks second. Anthracite is hard coal, as distinguished from bituminous, or soft coal.

Of the known supplies and reserves, the North American

continent is richest in coal deposits. There are, however, still large untested areas in the world; Siberia, in particular, may one day prove to be one of the richest coal regions.

Bituminous coal is used principally in the manufacture of steel and for other industries, along with coke, a by-product. The Appalachian field of the eastern United States is the most extensive bituminous field in the world. It stretches from Pennsylvania south into Alabama, and west into Kentucky, Indiana, and Illinois.

The United States has never exported more than a small amount of coal, utilizing virtually all of its own supply. England, on the other hand, has been the largest exporter of coal, providing fuel for its coaling stations along sea routes and to its empire outposts.

The Ruhr, a vital coal mining and industrial area in southwestern Germany, was occupied by French troops after the First World War in an attempt to control its valuable coal supply. The Saar Basin, an area of southwestern Germany adjoining France, is also an important coal source. Both French and German miners have worked in the Saar fields, and international disputes have arisen over ownership of the mines.

The best developed deposits of coal in Asia are in India. There are also big fields in the Manchurian section of northern China.

The Donets Basin of Russia is associated with coal mining and industrial activity. The region is to the north of the Black Sea.

Lignite, called brown coal, is a form containing more vegetable matter than the fully hardened anthracite or bituminous. Lignite is a valuable source of coal oils.

Peat is a surface form of coal not entirely hardened. It is dug from bogs and is used as a household fuel in the agricultural regions of Ireland.

Coal tar, a derivative of coal, is a source of chemicals, among them explosives and oils. Benzol, paraffin, aspirin, carbohc acid, and indigo are all products of coal tar.

TIMBER

Wood plays a most important part in the life of man despite the fact that other materials are now used in place of it for many things. One of the chief modern uses of wood is in the making of pulp which is the chief substance used in manufacturing paper. The daily newspaper is printed on paper made entirely of wood. Pulp mills are located in timber regions. Most of the newsprint for the United States has come from Canada, Newfoundland, Finland and the Great Lakes states. Some is made in the eastern United States.

Trees are important in soil conservation. They provide a firm base for the soil, preventing erosion. Thus the planting of new trees in reforestation projects protects farmlands and at the same time conserves the supply of timber.

Trees cut deep in the forests are dragged or floated on rivers to sawmills, usually located on the banks of rivers. In many places logs are piled on the river banks in winter and are floated to the mills in the spring. The handling of a mass of floating logs is both adventurous and dangerous work. A great amount of skill is necessary in the lumberjacks to keep the logs moving and to avoid jams.

In the United States the timber supply has been decreasing for some time, but the establishment of reforestation lands and national forests have helped to curb the loss. Early cutting of timber to clear farm land, forest fires and simple waste are the chief factors in diminishing the supply of timber.

The most extensive virgin forests are in the western United States. Most of the eastern American forest land is second-

growth, also marketable for timber products. Three great logging regions of the United States are Minnesota, Washington and Oregon.

Ash, an important American wood, is used largely in automobiles, wagons and carts. Its springy, tough quality makes it highly suitable for these purposes. Douglas fir, another American wood, is cut in the Pacific Northwest region, chiefly in Washington and Oregon.

Lumber cut in the southern United States is mostly yellow pine, a soft wood. Cypress is also a product of southern forests.

The great redwood forests of the United States are located along the Pacific Coast, particularly in California and Oregon. Giant Redwoods, which were fast disappearing, are now being preserved through efforts of the Save-the-Redwoods League of California.

The maple tree helps satisfy a sweet tooth. Maple sugar is made from its sap, mainly in New England. The trees are tapped in the spring when the sap rises, and the sugar is marketed for use in syrup and candy.

One of the primary uses of wood is in the manufacture of furniture. Grand Rapids, Michigan, is famous as the furniture-manufacturing center of the country.

Bark of the birch trees was used extensively by the American Indians in making canoes. The tree, found in hilly areas, has a bark which peels easily. The wood itself is hard and excellent for construction purposes.

"Coniferous" is a term applied to cone-bearing trees, such as the fir or pine. There are excellent stands of coniferous trees throughout the northern United States, supplying valuable timber resources.

The southern pine is the source of products known as "naval stores." Pitch and tar, taken from these trees, are used in calking ships and for other ship-building purposes. Rosin

and turpentine are other important products from pine trees. Many of these products come from the pines of northern Florida.

Tanbarks come from the oak, chestnut and hemlock trees. These barks supply the chemicals necessary in tanning and preparing leather.

Hardwood trees are usually found in tropical or semi-tropical countries. Hickory, oak, mahogany and teak are some of the varieties of hardwood trees. Softwood trees usually grow in temperate, cooler climates. Mahogany is a tropical wood used for fine furniture. There are several varieties of the tree, a member of the eucalyptus family, with hard, fine-grained brown wood, easily polished. Much of it grows in South and Central America.

Rubber is obtained from the sap of rubber trees. The vast forests of the Amazon valley in Brazil contain millions of such trees.

Great Britain is poorly stocked in timber and must import most of her supply, taking a lot from Canada. Northern Europe, including Finland, Norway, Sweden and Russia, is covered by extensive forests. Most of the world's matches are made in the timber regions of Sweden and Finland. Norway, Canada and Russia also make them.

Cork is made from the bark of oak trees native to southern Europe and northern Africa. Chief sources are Algeria, Tunis, Morocco, Spain, Portugal and southern France.

Sandalwood is a fragrant timber used for decorative purposes in Asia. It grows in Australia, India and other sections of southern Asia.

Bamboo is closely associated with China and Japan. The tree, often growing a foot in diameter and 100 feet high, provides light but strong material used in furniture, fishing rods, mats, screens and musical instruments. The camphor hung in closets to combat moths is obtained from the leaves,

bark and wood of camphor laurel trees in the Far East. Camphor is useful also in medicine, for celluloid and explosives.

The world's chief source of teak wood is southeastern Asia, notably India, Burma and Thailand (Siam). Teak is durable and water-resistant, and is used in shipbuilding. Ebony, famous as the most nearly black of all woods, comes from trees found in tropical Africa, in parts of India, and in Ceylon, and the East Indies.

BUILDING MATERIALS, PAPER, TOBACCO

Wood outstrips all other building materials in the extent of its use. Homes in most parts of the world are constructed of wood. However, brick is being used more and more widely. Usually bricks are made by heating clay in kilns. Resources are plentiful in all regions.

In more pretentious structures and in public buildings a great deal of granite and marble is used. The principal use of granite is for outside building material. It is long-lasting and withstands weather well. Granite is quarried largely in Vermont, and in other mountain areas. Marble is a principal product of Vermont, where much of the stone for use in the United States is unearthed. Fine, white marble, called Carrara, is produced in Carrara, Italy. Its beauty, particularly in sculpture, is noted the world over.

Limestone and marble are varieties of the same material, marble being simply a harder type of the rock formation that produces limestone. Both are used in buildings. Marble is often colored; black marble is found in England and Ireland. Indiana produces the famous Indiana limestone. Its quarries provide the country with the easily-worked building material which is both durable and architecturally pleasing.

Cement, used extensively in building, is made of lime and

clay. The combination is burned and ground to a fine powder. This, mixed with water, forms a paste which hardens into the final material. The difference between cement and concrete is that concrete is made by adding sand to cement, forming a synthetic material of great strength; cement is the natural lime-clay product.

Slate is a popular roofing material quarried in Pennsylvania and Vermont. It is used for a variety of other purposes, including school blackboards.

In many sections of the world homes are roofed with thatch or forms of straw. In Europe many are covered with straw, reeds or leaves, while in the Pacific palm leaves are utilized for thatch roofing.

Natives of the southwestern United States and other desert and semi-desert regions use adobe, sun-dried bricks of earth, for constructing their homes and other buildings.

Asphalt is a product made from petroleum and used extensively in road-building. It has a tar-like quality, thick and resinous, and hardens into a smooth, black material. The most important asphalt deposits in the world are on Trinidad, in the British West Indies, which contains a pitch lake covering about 100 acres. John Loudon McAdam in 1815 invented the road material which bears his name. He was a Scotch engineer who developed the process of laying small pieces of stone mixed with sand and cement in road-beds to provide a durable surface.

Paper is used in Japan as material for constructing houses, particularly for windows and interior partitions. Most Japanese houses are built entirely of wood and paper.

Paper is made from many materials. The name comes from papyrus, an ancient material upon which men wrote. Papyrus was developed in Egypt and used until the 4th century A.D. It was produced from the stems of plants found along the Nile. Today most paper is made from wood pulp,

which is treated chemically and pressed into thin sheets of varying grades and thicknesses.

Vegetable fibers and rags are two other paper materials. They are treated chemically, beaten, mixed with water and pressed. The best grade of paper, however, is made from rags. Until 1859 all paper in the United States was derived from linen or cotton materials. Today 90% of the paper supply comes from wood.

Spruce is most frequently used as a source for paper pulp. This is particularly true in the United States.

Manila hemp and Manila paper are made from the same material, the hemp or abaca plant. The poorer fibers are used in the manufacture of a strong quality of paper.

Papier mâché is made from a pulp of other paper products, mixed with various materials and pressed into form for decorations.

Tobacco is a plant. The leaves are picked and cured carefully to insure the best flavor. The tobacco plant reaches a height of from 3 to 6 feet. The product is confined largely to southern zones.

Sir Walter Raleigh popularized the use of smoking tobacco when it was brought to England from the Virginia colony, where the American Indians had long used it.

Virginia, North Carolina and Kentucky are among the leading tobacco-producing areas of the world. Their product is used especially in cigarettes. Cuba, on the other hand, is noted for cigar tobacco, one of its chief crops. Havana artisans have developed great skill in rolling cigar leaves.

The eastern Mediterranean regions produce famous blends of tobacco. Turkey and Egypt are especially noted in this respect. European people rely on Turkish tobacco for most of their cigarettes and cigars.

Tobacco is one of the chief crops of the Philippine Islands. Grown chiefly on Luzon, it is used in the production of cigars

for export to the United States and Far Eastern markets.

Cubebs are the unripe fruit of a plant native to the West Indies, Java and Sumatra. They provide filler for special types of cigarettes and also supply a product used in medicine and as a spice.

RUBBER

As transportation has become more and more dependent upon motor vehicles, rubber has developed into one of our most important items. In addition to its use for tires, rubber is important in insulation, in protection against shock, and for the manufacture of many articles of clothing, such as raincoats and boots.

Rubber is obtained from the sap, or milk, of rubber trees. In the raw state it is called latex. This is gathered by tapping the tree and attaching a cup into which the sap drains. Workers make regular tours among the trees to collect the sap and start it to factories where it is worked into the final forms.

There are several theories as to how rubber got its name. One is that an English chemist, named Priestley, discovered, about 1800, that a substance derived from trees would erase pencil marks by rubbing. Another is that European explorers observed natives of the East Indies islands playing with elastic balls. Upon examination it was found that this substance would remove pencil marks by rubbing. Hence the name "rubber" or, in some instances, "India rubber." Today India rubber is the name given the tough, elastic product in its more or less crude state as hardened from the sap.

Tropical conditions are necessary for good rubber growth. Heavy rainfall—100 inches a year or more—is required. Under these conditions, it takes a rubber tree from five to

seven years to reach full growth. Accordingly, the development of a productive forest of rubber trees is a slow process.

Wild trees were first found in abundance in the Amazon valley of South America. For some time their sap was the chief source of rubber. Para, at the mouth of the Amazon, was and still is to some extent a great rubber marketing and shipping center. Manaus, 1,000 miles up the Amazon, where the Rio Negro flows into it, is a transportation way-station for crude rubber.

However, Brazil lost out as the world's leading rubber producer when it was discovered that plantations were more efficient and profitable than the wild conditions of the jungles. The British took Brazilian rubber-tree seeds to colonies in southern Asia and started a flourishing industry there. Attempts have been made to start rubber plantations in the Brazilian jungle. Although as yet not entirely successful, the cultivation is progressing.

The Dutch, in addition to the British, established a large rubber industry in Asia, developing tremendous plantations in the East Indies islands.

British Malaya, in southeastern Asia, has led the world in the export of crude rubber. Vast plantations, scientifically cared for, under ideal weather conditions and with excellent shipping facilities, have given this area first rank. Java and Sumatra are two of the leading rubber-producing islands of the Dutch East Indies. Madura, near Java, is also important. The East Indies have ranked second on the world rubber export list.

The great Sarawak rubber plantations are on the island of Borneo, in the southwest Pacific. British North Borneo and Sarawak have ranked fourth and fifth in rubber exports, and Dutch Borneo, on the southern part of the island, also produces a large amount.

The British obtain large quantities of rubber from the island of Ceylon, off southern India. The first plantations were developed there with Brazilian rubber-tree seeds.

Africa contains a number of rubber plantations, chiefly in Liberia. The Firestone Company has experimented extensively in the development of African rubber sources.

Charles Goodyear, an American inventor, spurred the development of new uses for rubber. He also discovered the vulcanizing process. In 1836 he hit upon the use of rubber for shoes and boots. Vulcanizing was discovered in 1842. The process makes rubber harder and more durable, and is also a protection against decay; it uses heat with sulphur mixtures on the crude rubber, and takes its name from Vulcan, the ancient god of forging and smelting.

The United States has been the world's largest rubber importer because it contains no crude-rubber sources of any note, and consumes more than any other nation. This large consumption is due to the fact that the United States has the largest number of automobiles of any country. Akron, Ohio, is the "rubber capital" of the United States, the center of the tire-manufacturing industry. Dr. Benjamin Franklin Goodrich took the first rubber machinery to Akron and built the factory which became the nucleus of the country's industry.

Massachusetts is the largest American center of the boot and shoe industry. Given the original impetus by Goodyear's work, factories developed mainly around Lynn and Brockton, near Boston.

Today many experiments are being made to produce a supply of synthetic rubber. Some types have already proved more useful for special purposes than natural rubber, and provide notable durability for automobile tires, for instance. Scientists can regulate the quality of the synthetic product for the particular use desired. Buna and Duprene are syn-

thetic materials developed by research chemists and private manufacturers.

The guayule plant, grown in Mexico and the southern United States, has proved a fairly successful substitute for tree rubber. This industry is being developed gradually. Balata is a product drawn from South American trees and used as a waterproofing coat for fabrics. It is mixed with other rubber materials for special purposes.

Chicle is a gum obtained from trees in Central America, which forms the base for the manufacture of chewing gum. The trees are similar to rubber trees. Guatemala, Honduras and Mexican Yucatán are the chief sources of chicle for America.

Gutta-percha is a rubber-like product obtained from the sap of certain evergreen trees in tropical countries. It is used widely for insulation material, golf ball coverings and other articles where resiliency and toughness are required.

THE UNITED STATES

The States and Their Capitals

1. Maine—Augusta
2. New Hampshire—Concord
3. Vermont—Montpelier
4. Massachusetts—Boston
5. Rhode Island—Providence
6. Connecticut—Hartford
7. New York—Albany
8. New Jersey—Trenton
9. Pennsylvania—Harrisburg
10. Ohio—Columbus
11. Indiana—Indianapolis
12. Michigan—Lansing
13. Wisconsin—Madison
14. Illinois—Springfield
15. Delaware—Dover
16. Maryland—Annapolis
17. Virginia—Richmond
18. West Virginia—Charleston
19. Kentucky—Frankfort
20. Tennessee—Nashville
21. North Carolina—Raleigh
22. South Carolina—Columbia
23. Georgia—Atlanta
24. Florida—Tallahassee
25. Alabama—Montgomery
26. Mississippi—Jackson
27. Louisiana—Baton Rouge

28. Texas—Austin
29. Oklahoma—Oklahoma City
30. Arkansas—Little Rock
31. Missouri—Jefferson City
32. Kansas—Topeka
33. Nebraska—Lincoln
34. Iowa—Des Moines
35. Minnesota—St. Paul
36. South Dakota—Pierre
37. North Dakota—Bismarck
38. Montana—Helena
39. Wyoming—Cheyenne
40. Colorado—Denver
41. New Mexico—Santa Fe
42. Arizona—Phoenix
43. Utah—Salt Lake City
44. Idaho—Boise
45. Nevada—Carson City
46. California—Sacramento
47. Oregon—Salem
48. Washington—Olympia
- (49. District of Columbia—Washington)

SOUTH AMERICA

The Countries and Their Capitals

1. Venezuela—Caracas
2. Colombia—Bogota
3. Ecuador—Quito
4. Peru—Lima
5. Bolivia—La Paz
6. Chile—Santiago
7. Argentina—Buenos Aires
8. Uruguay—Montevideo
9. Paraguay—Asuncion
10. Brazil—Rio de Janeiro
11. French Guiana—Cayenne
12. Surinam (Dutch Guiana)—Paramaribo
13. British Guiana—Georgetown

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